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1930

DEER AT NIGHT IN THE NORTH WOODS

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DENIZENS OF THE MOUNTAINS—EDMUND C. JAEGER

DEER AT NIGHT IN THE NORTH WOODS—TAPPAN GREGORY

ANIMAL LIFE OF THE YELLOWSTONE NATIONAL PARK—VERNON BAILEY

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Photographed by T. Gregory and W. Hodges

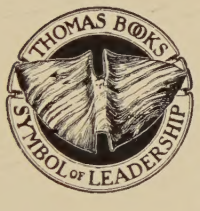
PUT DOWN HER HEAD TO DRINK

(See p. 161).

DEER AT NIGHT IN THE NORTH WOODS

BY

TAPPAN GREGORY



Illustrated with Night Photographs

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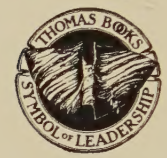


FOREWORD

IN SETTING down my experiences in photographing wild animals at night over a period of some twenty years, it has been impossible to give credit to all my various associates. I fear it is easy to gather the impression from the text that when pictures are taken from a boat or canoe, the man in the bow who fires the flash is the all important figure. This is far from the truth. There is probably more skill required and a better opportunity for the exercise of good judgment in directing the progress of the craft in such a way as to approach to the proper distance in perfect silence, and at the psychological moment, than there is in watching for a suitable pose and then merely pressing the trigger to discharge the flash. No measure of success can be attained without intelligent coöperation between the man at the gun and the paddler, and whatever credit is due, therefore, for any good picture belongs equally to both.

The text that follows is made up largely of my own experiences and observations, and every statement of fact is accurate. The pictures themselves are exactly what they purport to be.

My associate in the early days and for many years thereafter was Wetmore Hodges. He and I went through the period of trials and experiments together, and most of the pictures that appear were taken in his company. The beginnings were made possible by very timely suggestions from Norman McClintock, a disciple of that pioneer in game photography, George Shiras, III, who has probably done more than anyone else and knows more about it. I was often paddled by my brother, S. S. Gregory, Jr. Before long C. H. Hodges, Jr., joined our circle and took the place of his brother when circumstances made it impossible for the latter to continue our early association. I had the pleasure of three most interesting and instructive sessions with Donald R. Dickey during which we followed our usual custom of alternating between the duties at the bow and stern of the boat, and in more recent years I was associated in

numerous deer-shining enterprises with W. P. Harris, Jr., and Harold Du Charme.

I have appreciated very much the coöperation of Dr. H. L. Beye, H. T. Deane, and C. S. DeLong, who, on occasion, devoted their efforts exclusively to paddling, without any thought of participating themselves in the more attractive feature of firing the flash.

I am very grateful to Dr. W. H. Osgood, of Chicago, for reading my manuscript. I know he is very busy and constantly called upon with demands of this sort, which makes me value all the more his willingness to give me the benefit of his experience and knowledge. The friendly interest that he manifested in devoting so much time and effort in my behalf was really more than I had any right to expect, and his coöperation was, of course, invaluable.

It is a pleasure also to acknowledge my appreciation of courtesies extended to me by Hon. George Shiras, III, Ernest Thompson Seton, William M. Newsom, Dr. Gilbert H. Grosvenor of the National Geographic Society, Dr. William Bruette of Forest and Stream Publishing Company, Charles Scribner's Sons, Doubleday, Doran and Company, and The John Crerar Library of Chicago.

This would be incomplete without a word for old Tom Gallagher, guide, preceptor and friend during the days of my youth when I was first knocking around in the woods. He was always loyal and enthusiastic, and every demand on his services, day or night, was met with willing and efficient effort on his part.

September 16, 1929

CONTENTS

PAGE

Foreword IX

List of Illustrations XIII

CHAPTER I

The Northern White-Tailed Deer 1

CHAPTER II

Habits of Deer and Difficulties of Daylight Photography 39

CHAPTER III

Method at Night and Weather Influences 66

CHAPTER IV

Actions of Deer After Flash 96

CHAPTER V

Reaction to Perceptions of Boat 130

CHAPTER VI

Recognition of Danger Signals 153

CHAPTER VII

Random Experiences 170

CHAPTER VIII

A Short Session with Moose 190

ILLUSTRATIONS

FIGURE		PAGE
	Put down her head to drink (page 161) ..... *Frontispiece*	
	Map of section of Upper Peninsula of Michigan where most of the pictures were taken	3
2	Heavily wooded on their northern slopes	7
3	Bold rocks sloping to the water's edge	13
4	The great fresh-water sea itself	19
5	The background is much the prettiest part of this shot	23
6	A spike-horn buck	29
7	Framed by the bushes	33
8	Ready to move on	41
9	A perfect reflection	45
10	Much interested in the jack	51
11	Another good reflection	57
12	The shining skiff fully equipped	61
13	Taken after a long chase	67
14	She looked sharply toward the river	77
15	Our rocky camp at the narrows of Mountain Lake ..	81
16	Taken when it was actually raining	85
17	Seeing the lake flatten out and become dead calm	89
18	The moon still shining brightly	93
19	With his ears laid back	99
20	He showed no inclination to move	103
21	Numerous islands of rushes	107
22	With one forefoot raised	111

FIGURE		PAGE
23	As she stood against the bushes	113
24	Nibbling leaves and other choice morsels	115
25	As he threw up his head	119
26	Returned for another picture	121
27	A nice buck of about eight points	125
28	The dark reaches of Cliff River	127
29	Often the light on the bushes fixes their attention	131
30	One of a group	135
31	The lure of salt	139
32	For just a moment both stood motionless	143
33	The raised hind foot does not add to the beauty of this	147
34	Taken in the face of brilliant lightning	151
35	Stopped once more to cock one ear	155
36	He straightened up again	159
37	Alert to every lurking danger	163
38	She stopped to look around	167
39	Looked intently at the jack	171
40	It turned its head	177
41	After patient waiting	185
42	Crowned with immense antlers	197
43	Photographed him three times	201
44	One of the homeliest pictures of a cow	203
45	The second shot	207

DEER AT NIGHT IN THE NORTH WOODS

CHAPTER I

THE NORTHERN WHITE-TAILED DEER

FAR up in the deep woods of the Upper Peninsula of Michigan, Pine River meanders on its course from Pine Lake and empties into Lake Superior half a mile away as the crow flies. Here lies an unfenced tract of some thousands of acres, within the boundaries of which, up to the present, game animals and fur bearers have been afforded no protection other than that furnished by the statutes of the state. The territory embraced within its limits is rugged, the hills rising from two hundred to a thousand feet above Lake Superior. They are heavily wooded on their northern slopes, with conifers and hardwood, but present an uncompromising aspect to the south, where comparatively few trees cling to the barren rocks. Scattered among them are a dozen lakes and ponds, some several miles long, others not more than one hundred yards across, whose depths and shore lines vary with their situation. Bold rocks sloping to the water's edge, low bushy points, grassy bays, white sand beaches, swampy lowlands, dense live timber, stark deadwood and the tangle of struggling second-growth in old burnings and slashings, all have their place. Most of these inland lakes are connected by crystal clear streams, which carry their waters ultimately into Pine Lake and on down Pine River to the great fresh water sea itself.

It was here that we first learned something of the wilderness and the ways of its creatures. For many years we spent a few weeks every summer roaming the country, observing what we could of the wild life about us. The satisfaction of watching the birds and mammals at length gave way to a restless ambition to photograph them, especially the white-tailed deer. There is no animal more beautiful and fascinating to me, and it has always been a delight to watch its graceful action, whether coming upon it unexpectedly to catch a fleeting glimpse of its hurried flight, or watching it pursuing its way, ever on the alert, but unsuspecting the presence of man. Once, topping a rise at dusk, in the late fall, I came suddenly upon two. Though I

stopped short, they had seen me, or at least had detected motion in my direction. A friendly tree, however, screened me fairly well and I stood for some minutes, watching their careful investigation, interested in their stealthy approach in an effort to spy me out, amused at their subterfuges of short scurries to lead me on, followed always by further sneaking about, and inspired as always by their resilient bounds when the fading light made further lingering useless.

Opportunity has not been accorded me for sufficient observation and research in the field to enable me to deal comprehensively with the exacting subject of the white-tailed deer, its characteristics, habits and life history, from a scientific standpoint. I feel, however, that some such treatment has a proper place here. Accordingly, I have examined many of the best available authorities on the subject with the idea of presenting conclusions based on their judgment, supplemented in some cases by my own observations. I do this with much hesitation and not with the idea that such a compilation is adding anything of importance to the published information already available from those much better qualified to present it than I am, but because I feel that no effort such as mine, devoted almost exclusively to a discussion and narration of experiences in photographing deer, would be complete and have the proper foundation without at least an outline dealing with the subject of deer in a more general way. It has been a great pleasure to study the works of those who have devoted so many of their best years to this subject, and I have conceived no little admiration for them for what they have done and the way in which they have done it, and for the vast store of thorough and accurate information which they have made available to those interested and anxious to learn.

The deer that is found in the Upper Peninsula of Michigan is now accepted as a subspecies of the Virginia deer and generally known as the northern white-tailed deer or northern Virginia deer. The scientific name is *Odocoileus virginianus borealis*. It was first described as a subspecies by Gerrit S. Miller, Jr., in 1900 under the name *Odocoileus americanus borealis* (Bulletin New York State Museum, vol. 38, p. 83). The type speci-

MAP OF TERRITORY WHERE
MOST OF OUR PICTURES WERE TAKEN

men from which the subspecies was described was taken at Bucksport, Maine, December 12, 1895. A subspecies, of course, is nothing more nor less than a geographic race. The species is divided into a number of these different races comprehending distinctive features, which, in the case of the Virginia deer, are largely of size and color. In the distribution of the different races, it is possible to establish quite definitely geographic limits within which racial differences are constant. Miller, in his List of North American Recent Mammals (U. S. National Museum Bulletin 128), names five subspecies, *virginianus*, *borealis*, *clavium*, *louisianae* and *macrourus*. He prefers to call the Florida deer, *osceola*, a distinct species, though drawing attention to the fact that Thomas Barbour and G. M. Allen (The White-Tailed Deer of Eastern United States, Journal of Mammalogy, vol. 3, no. 2) consider it only a subspecies of *virginianus*. *Osceola* is also accepted as a subspecies by W. H. Osgood in his pamphlet The White-Tailed Deer (Field Museum of Natural History, Zoölogical Leaflet no. 1), but however many subspecies are recognized, the northern variety, known as *borealis*, has long been accepted without question and it is only this race with which I am acquainted and with which I propose to deal, after some further brief comments of a general nature.

The species was undoubtedly named *virginianus* because the first intelligent description that could be applied to this particular kind of deer referred to reports from Virginia. Osgood says that the early French writers called it *Cerf de Virginie*, from which came the scientific name *Cervus virginianus* and the commonly accepted name Virginia deer. There is a reference in William M. Newsom's recent book (Whitetailed Deer) to a report of Thomas Hariot, one of the colonists of Virginia, published in 1588, describing the deer found in Virginia at that time. Newsom credits this report with being the foundation for the name Virginia deer and Lewis and Clark with being the first to call it the white-tailed deer.

The species *virginianus* was at first included in the genus *Cervus;* in later references it appears under *Cariacus* (C. Hart Merriam, 1884, The Mammals of the Adirondack Region) ; and finally it took the generic name *Odocoilcus*, by which it is known

to-day. This term is taken from two Greek words, meaning "tooth" and "hollowed," but whether this was applied to *virginianus* because of its "well-hollowed" tooth, as indicated by T. S. Palmer in his Index Generum Mammalium (North American Fauna no. 23) in a quotation from Rafinesque, or because the type tooth of this deer was first found in a cave, as suggested by E. T. Seton (Life Histories of Northern Animals), seems to be a matter of conjecture.

Among the higher divisions of the animal kingdom, the first is the class Mammalia, or mammals, which is divided into orders and suborders, among which is found Artiodactyla, the ungulates or hoofed mammals with an even number of toes. Following the order comes the family Cervidae, the deer, and then the genus *Odocoileus*, which includes the whitetail, blacktail, mule deer and several related species found only in America.

Barbour and Allen consider *borealis* a poorly marked subspecies and note as some of its characteristic differences from typical *virginianus* that it has more widely spread antlers, a longer winter coat and a slightly brighter summer coat. I have a number of examples among my photographs of bucks whose antlers tend quite distinctly to reach up and approach each other rather closely at the tips, but I imagine these are exceptions of no consequence in considering this distinguishing feature.

The summer coat or pelage is characterized by Barbour and Allen as similar to that of the typical *virginianus*, but redder. I find considerable variation in the terms used by authorities on the subject in describing the color of the summer coat of the species, some referring to it as reddish brown, others as dull rusty red, yellowish brown or bay red to buff yellow. The under parts of the Virginia deer, the under surface and tip of the tail, the inner side of its legs, and a patch on the throat are white. There is a white ring around each eye, a white or whitish band across the nose, and on either side of the chin a dark spot. The upper surface of the tail is of a color similar to the red of the rest of the coat, but more dusky. In the autumn, I have seen marked differences in the colors of the upper surface of the tail in different individuals. In the case of two spike-horns

HEAVILY WOODED ON THEIR
NORTHERN SLOPES

which were seen many times, the basal half of the upper surface was of much the same color as the rest of the coat, the other half of the tail of each deer being quite black; while a fawn seen with a doe carried a tail with the upper surface entirely black, as well as I could tell from a little distance. Once a doe was observed feeding with the spike-horns. Her coat still showed a considerable brownish tinge and the upper surface of her tail appeared to contain not a single black hair. There appears to be some difference of opinion as to color distinction between *borealis* and *virginianus*. I have already noted that Barbour and Allen thought *borealis* redder in summer pelage. Charles B. Cory (The Mammals of Illinois and Wisconsin) and Witmer Stone and William E. Cram (American Animals) describe it as grayer than *virginianus*. With all deference to these men who have undoubtedly examined closely many more specimens than I have, I can not help suggesting that color difference in the summer coat is not very convincing as a basis for distinguishing *borealis* from *virginianus*. I have seen such a variety of color in the deer of the Upper Peninsula of Michigan over a long period of years, color ranging from rich reddish brown to what might almost be called pale yellow or tan, that I should deprecate the necessity of defining *borealis* by the standard of color. Certainly the condition of the animal, and very likely other influences that are not related to the limits of its range, must exercise appreciable influence upon the color of its coat.

One apparent feature of the color of the summer coat which shows up quite plainly and quite uniformly in many of the pictures in my collection is a line extending down the middle of the back of the neck, of darker color than the surrounding pelage. It is much more noticeable in the pictures of does than in those of bucks. In fact, in only one buck picture is it distinctly marked, that one being of a small spike-horn. I can not see that it appears at all in the pictures of the larger bucks. In observing deer alive and at large, I have noticed it indiscriminately in spike bucks and does.

The thinness of the summer coat on the ears is quite noticeable, particularly when they are viewed from behind, with the bright light shining through, giving them a translucent ap-

pearance. John D. Caton (The Antelope and Deer of America) points out that the upper lip and the nose of the deer as far as the upper part of its nostrils are entirely naked and when the animal is healthy are always moist and cold to the touch. He calls attention to the fact that the deer's face is a favorite place for flies and mosquitoes to gather.

From May or June until some time in September, as a rule, the Virginia deer is in the red, wearing its summer coat, though if it has wintered well, according to Merriam, the winter pelage, known to the hunter as the blue coat, and variously described as grayish, leaden gray, blue or lead color, may be well advanced by the last of August and vice versa. The same influence, of course, would affect the change from the blue to the red coat.

The hairs of the winter coat are much longer than those of the summer and more dense. They also have a tendency to be crinkly rather than straight as those of summer. In Caton's description they are tipped with black where the coat is colored, and as the winter advances the color of the deer's pelage becomes lighter. Those that I have seen in November appear to me to have a very decided brownish tone in their gray coats.

Newsom gives this clear interesting description of the hairs of the winter coat in his "Whitetailed Deer."[1]

"In this connection it is interesting to note the difference between the summer and winter coat. Each is a separate coat, apart and distinct from the other, grown twice a year. The red coat is very short compared to the winter coat, and the red hair is much less in diameter, so that it lies flat on the body. When the winter coat comes, the hair grows out of the same hair-follicles, pushing out the hair of the other coat. The new hair of winter has such large diameter that it practically stands on end. It is filled with pith and is easily broken. This combination of large diameter and air space makes it very warm. It does not reach its full development until January, when, as one old natural history says, it is 'in the gray,' and further adds: 'The skin is said to be toughest in the red, thickest in the blue

[1] *Whitetailed Deer*—Charles Scribner's Sons.

and thinnest in the gray. The blue skin is most valuable'—referring to buckskin, of course.

"It is not necessary to examine the hair under a microscope to see these characteristics. I have an ordinary magnifying-glass in a small brass frame, the kind used by linen buyers to count the threads of linen. With this glass you can clearly see in the cross-section of the hair, the pithy, soft interior. When you bend the hair it becomes flat where the bend is, like a hollow pipe. And if you examine a white hair in sunlight with this glass, the light seems to shine through it.

"While the deer are in the red coat, when shot in water they sink. But after the blue coat comes, they will float." He credits some of this buoyancy to the hair and some to the increased fatness of the deer in November.

When the fawns are born, they wear a pelage of rich reddish brown, profusely spotted with white, the spots being arranged in more or less irregular lines along their backs and flanks, extending in two more definite lines up the back of the neck to the ears. This coat is worn for about four months and the spots disappear when the summer hair is shed and the fawns first come into the blue coat. I have seen them and photographed them at the water's edge as late as the twelfth of September, with the spots still very conspicuous. Caton noted that among the Virginia deer on his grounds, spots appeared on about five per cent of the adults, coming with the winter coat, these spots being not white, but merely of a lighter shade than the basic color of the coat.

There are a few other parts of the Virginia deer where white hairs occur, to which reference has not yet been made. In this species both the tarsal and the metatarsal glands are present and noticeable on the hind legs, the tarsal well covered by a tuft of white hairs and the metatarsal exposed, but surrounded by a ring of white hairs. This latter gland is an additional feature by which *virginianus* may be distinguished from other deer, the marked difference being that it is smaller on *virginianus* than on the mule deer or the black-tailed deer. A conspicuous fringe of white hair between the toes is cited by Barbour and Allen in their diagnosis of *borealis*. This is referred to by Caton as a characteristic of *virginianus*. He states that in the

great majority of cases there is also white hair about one or more of the hoofs. Inasmuch as the subspecies *borealis* had not been recognized at the time he wrote, I suppose the fact that he refers to this characteristic as applied to the species is of no particular significance. It may well be that all of those deer observed by him with white about the hoofs and between the toes could properly be classified as *borealis*.

There is one more gland, perhaps worthy of note, which is of interest, although not useful in identifying *virginianus*. It is the interdigital gland occurring in each foot, and Newsom suggests that it may affect the scent left by the deer in its tracks because of the very definite odor of the secretion of this gland.

Albinism, partial or complete, is not infrequent in *borealis*. I have never seen a live deer that was entirely white, but there are many authentic records of them in the Upper Peninsula. I think quite likely that deer with albinistic tendencies are less rugged and normal than others of the species and that it might almost be said that they are in a measure degenerate.

Whatever may be said of color, as diagnostic of different races of *virginianus*, it is generally accepted that *borealis* is larger than any other subspecies. The average weight of a buck in good condition is usually stated at from two hundred to two hundred and twenty-five pounds live weight. Newsom records one of three hundred and eighty-eight pounds and Seton an even larger one, reported at four hundred pounds. The largest one that has been directly reported to me was a large deer seen only for a moment in the woods, the weight of which was estimated as it passed. But it was given by a man who has spent many years in the woods and I think is fairly accurate. He saw this great animal in northern Michigan in the fall of 1928, commented on the tremendous growth of antler, and the awkward gait of the buck, and thought that it would probably weigh three hundred and fifty pounds. He said that it was the largest one that he had ever seen. These, of course, were exceptional individuals, although not infrequently, I believe, a large buck will weigh three hundred pounds. The average weight of a doe, according to Osgood, is one hundred and fifty pounds. L. R. Dice, in A Manual of the Recent Wild Mammals of Michigan (Michigan Handbook Series, no. 2, 1927), gives the length

BOLD ROCKS SLOPING TO
THE WATER'S EDGE

of *borealis* as about fifteen hundred millimeters, and the length of its tail about two hundred and forty millimeters. The tail of the Virginia deer is said to be the longest of any deer and is certainly a very picturesque feature.

Perhaps the most interesting single feature in the structure of the white-tailed deer is the antler, named, according to Newsom from the old French word *antoiller*, which in turn was taken from the Latin *antoculorum*, meaning before the eyes, referring, of course, in the first instance to the brow tine and later applied to the whole antler. It could not be applied to the brow tine of the white-tailed deer because the white-tailed deer has no brow tine. Deer's antlers are made of bone rather than horn, which is derived from the skin. Normally antlers occur only in the male of the species, although once in a while a doe is found with them. Such antlers as do appear on does are invariably inferior in size and development, and retain their velvet as a rule, according to Merriam, no matter what the season. The terminal half of a buck's antler curves forward, and the tines growing out from the main beam extend upward from the back or upper side of the antler. This is quaintly stated by Hariot in differentiating between the deer that he found in Virginia and those that he had left in England, in these terms: "They differ from ours onely in this, their tailes are longer and the snags of their hornes looke backward" (A Briefe and True Report of the New Found Land of Virginia, 1588). I quote from a reprint privately printed in London in 1900.

In the diagnosis of *borealis*, Barbour and Allen comparing the form of the antlers with those of typical *virginianus* say that they usually come off from the animal's forehead at a greater angle, "giving a slightly flatter spread, with less tendency for the tips of the beams to converge." There is no question but that the characteristic *borealis* head carries widespread antlers. This is true to such an extent that on the few occasions when I have photographed bucks whose antlers do not follow this rule, they have at once attracted my attention as being very striking and unusual.

In the second year of the life of the normal buck, he has only a spike, a single prong without branches. His second antlers,

growing in the summer of his third year, are still relatively small but show, as a rule, a basal snag and one tine each. Caton found that the third set of antlers, with rare exceptions, had two tines each, which he considered the normal condition, in view of the fact that of the hundreds of deer grown to maturity on his grounds, not more than one or two had developed a third tine. Osgood states that full development of the antlers comes in the fourth, fifth and sixth year, when the buck is in his prime, and that a full-grown buck will have five or six well developed points on each side. More points than that is distinctly abnormal. I have seen a number of bucks carrying as many as six points on each antler, but none on which I could count, either on the animal itself or from its picture, more than that number. I was fortunate in procuring a flashlight of the largest and finest head that I have ever seen in the Upper Peninsula. As I look at this flashlight, I can only count twelve points, although there may have been more. They are not all separate tines, some of them resulting from the branching of the longer tines. I think the most reported on any head is seventy-eight. After the buck reaches his prime, while the beam may increase in weight and thickness, the antler is likely to have fewer points and become craggy and gnarled and less symmetrical. Osgood also calls attention to the fact that the pair of points nearest to the base of the beam, which are frequently called basal snags, are longer and more upright in the white-tailed deer than in other American deer. There is an interesting note by Caton[1] to the effect that there were fossil antlers found in the lower drift in the valley of the Fox River, near Ottawa, Illinois, and nearly the entire skeleton of a female Virginia deer, "in the same locality and at the same depth, in a pocket of clay deposited in the lower stratum of gravel," this skeleton, in his judgment, evidently having been deposited at a later period than the antlers.

It is a strange and wonderful fact that the buck sheds his antlers every year and each year grows a complete new pair. The antlers are usually discarded in the late winter or early spring, though there is considerable variation in these dates.

[1] *The Antelope and Deer of America—Forest and Stream* Publishing Company.

Probably more will shed them in January than in any other month. I have always been on the lookout, when walking through the woods, for antlers that have been shed, but have seldom had any success in finding them. Once I looked quite thoroughly over territory, which, according to my information, had been used during the preceding winter as a deer yard, and there I found two antlers, both in fairly good condition. I think the explanation of their disappearance is that porcupines find something in them attractive to the taste and dispose of them almost completely before spring is far advanced. Most of those that I have found have been more or less destroyed in this way. The condition of the animal undoubtedly is a factor in determining the time for the antlers to fall, and sometimes it may be as late as March before the buck has cast them off. Within a few weeks after they are lost, new ones first make their appearance. While they are growing, they are very pliable and may be given shape or direction without apparent injury, but they are also, undoubtedly, very sensitive during this period. The care with which a buck with good antlers will choose his path through the brush with every apparent effort to guard against bruising his antlers is evidence of this fact.

Judge Caton has given us such an intelligent and comprehensive account of the development of a buck's antlers, that I shall borrow extensively from his work in trying to set down an intelligible description of this remarkable process. The antler grows on a pedicel or process of the skull and during growth is provided with a periosteum and with internal blood vessels. It has no canal filled with marrow such as is found in the other bones of the body. When it is dropped or shed in the winter, the periosteum which surrounds the pedicel commences extending itself over the naked end of the bone which it surrounds and which constitutes the seat of the antler. In a few days the pedicel is thus entirely covered. As the new antler commences its longitudinal growth, the beam attaining immediately its full diameter, the first noticeable effect is a bulging of the periosteum. It expands with the growth of the antler, which is regulated in such a way that all parts of the antler are completed almost at the same time, except the burr, which is gradually enlarged dur-

ing the growth of the antler and attains its full size before the latter is completed.

The antler during its growth is fed by blood vessels, some of which are carried on the outside by the periosteum, and some of which turn in at the pedicel and extend upward through the inside of the antler, accompanied by arteries coming up through the pedicel into the inside of the antler. Ossification commences in the outer wall at the base of the antler and develops upward with its growth, so that the wall at the tip is the last to be completely ossified. The process then, however, is reversed in that the tip is the first part to become solid bone, completion of ossification of the interior of the antler then progressing downward until the whole is solid, except the very lower part, which remains more or less porous when the internal growth ceases and the antler dies and is discarded. What actually cuts off the flow of blood into the interior of the antler, leaving it to a greater or less extent porous or light, is the solidification of a thin plate at the lower extremity of the antler in contact with the pedicel. During the process of the growth and hardening of the antler, the pedicel itself is alternately compact and porous in order to permit the annual changes that take place. The burr, or bony ring about the base of the antler, acts rather to protect the blood vessels than to compress them. This being true, when the hardening process is finished and the time has come for the periosteum or velvet to be removed and the hardened antlers to be polished up, the blood is still flowing in the vessels carried along the outer wall of the antler in the velvet, so that when the velvet is rubbed off, it is found full of blood. If the velvet is not detached, however, the blood vessels contained in it will close eventually of themselves, not because of any mechanical compression at the burr, "but in obedience to some law of nature not clearly understood." The final loosening of the antler is accomplished by the slow disintegration of the articular plate between the pedicel and the base of the antler.

The velvet will not come off by itself, but is rubbed off against small trees and bushes, the process of removal being aided sometimes by the animal with its feet. This is usually done in September, so that ordinarily by the middle of that month the ant-

THE GREAT FRESH-WATER SEA ITSELF

lers are clean and polished, having reached their full growth during the previous month, although, of course, then still in the velvet. I find this statement as to the method employed by bucks in removing the velvet from their antlers so commonly accepted by scientists of standing, that I am constrained to believe that it correctly states the fact, though I am given pause and made hesitant by the positive statement of so eminent an authority as George Shiras, III (The Wild Life of Lake Superior, Past and Present. National Geographic Magazine, vol. 40, no. 2), that no member of the deer family removes the velvet by rubbing it off on saplings. He goes on to say that "occasionally a buck will use its fore feet for this purpose, or gently switch its antlers in the brush." Caton credits abnormality or deformed growth of antlers to injury received during their development, suggesting that if the injury were to the pedicel the deformity would persist, but if to the antlers themselves, it would not reappear after those particular ones had been discarded. He also calls attention to the fact that injury to the genital organs of a buck is reflected in the stunted growth of its antlers.

I was interested to find in Merriam a statement that antlers are first seen as a rule about the middle of May, because in the spring of 1928, along about the middle of March, I was much entertained by the antics of one of a pair of twin fawns, who sported thin short spikes. He took it upon himself to dictate on occasion to a doe when she might participate in feeding at a trough set out for the deer of the neighborhood. He would bounce at her in no uncertain manner, striking with his fore feet and driving her back, then almost immediately forgetting her presence and permitting her to approach while he was busy with his meal. It appeared much as though he were showing off, giving notice that now that he had antlers he was entitled to additional respect. These deer were all wild deer, not protected during the hunting season and not in any way fenced or restricted.

It is very seldom that when bucks fight in mating season one is actually gored to death by the other. Caton says that he never knew a point of an antler of one deer to reach an adversary. The antlers do, however, constitute, with their various

tines, an effective shield, which in itself is a large measure of insurance against fatality in these frequently occurring duels. Much less damage is done by the bucks to each other than would be the case if they were armed with long single prongs. Sometimes the antlers of fighting bucks become inextricably interlocked and then both die, but I think not always a lingering death by starvation. I have a photograph of two mule deer taken at Vermejo Park, New Mexico, one morning, showing both lying dead, their horns interlocked, neither animal touched by carnivores, and with the photograph went the statement of a man whose accuracy I can not question, that these deer were nowhere in the vicinity the evening before. One of the deer showed marks, apparently made by the antlers of the other, and which may have been a contributing cause of death. The other one appeared to be unmarked, and the conclusion seems inescapable that the violence of effort employed by these two animals in their desperate struggle was almost solely responsible for their dying in such a short period of time with their antlers still hopelessly locked together.

The fore feet, rather than the antlers, of the buck are the weapons that it uses in defense against the attacks of its natural enemies, and which it may, on occasion, use, when opportunity offers, upon human beings, when it is the maddened creature of the mating season, so different from the shy and timid beast, shunning the presence of man at any other time of the year.

Newsom has furnished typical antler measurements of a good buck as follows:

Widest spread outside, over-all dimensions, 18 inches.
Outside length over curve from burr to tip, 21 inches.
Circumference of antler above burr at the base, 4½ inches.
Spread of top points from tip to tip, 14½ inches.
Spread at the tips, point to point, 11½ inches.

He gives the life of a buck, as stated by different authorities, as from ten to thirty or forty years. I imagine anything much over ten years would be quite exceptional.

In their battle for existence, deer must have the advantage

Photographed by T. Gregory and W. Hodges

THE BACKGROUND IS MUCH THE PRETTIEST PART OF THIS SHOT

of keen senses, constantly on the alert to aid them in eluding their numerous enemies. Their eyesight is keen in detecting moving objects and to a certain extent in identifying them, but only fair when it comes to spying out objects standing without motion. I remember one very good illustration of this fact when I stood in the snow on an old lumber road and watched a doe approach along a well worn runway. She seemed unmindful of my fresh tracks, and after stopping and scrutinizing me where I stood motionless for many minutes, went on her way. I had set my pack on the road some little distance off, and noticing this at the last moment as she was about to cross, she started and bounded away. It was in such a position that she had no opportunity to study it well except from close range. This seemed to worry her, and it was many minutes before she mustered sufficient courage to cross the road and disappear into the timber after circling several times and making numerous false starts. But never once did she look my way again after the first long gaze had satisfied her that I was innocuous. I am not sure whether her hesitancy in passing the pack was due to a trace of human scent, which came from it, or to the fact that it was well hidden from view except when she came close. I have many times had similar experiences. Sometimes a deer startled by my approach would even then, if I stood still, require a long session of investigating before moving off, provided the scent did not give me away. On the whole a deer has good eyesight, although this sense is not developed as keenly as its hearing which in turn is probably not as highly developed as its sense of smell, though I find a statement by Audubon and Bachman (Quadrupeds of North America, vol. 2) to the effect that its ears are as keen as its nose. In the same work, it is stated that the authors never heard the voice of a female deer beyond a mere murmur when she calls her young, or when she is shot, a bleat like that of a calf in pain. I have heard does blow many times. This manifestation does not seem to be restricted to bucks by any means. Once when seeking flashlight photographs over the still waters of a small inland lake, we were puzzled at the sound of two deer wading about in the shallow water, one following the other, bleating as it moved about. We felt sure they must be doe and

fawn but, as it turned out, they were two bucks, the second one, which was doing the bleating, being distinctly smaller than the first one. I think that is the only occasion on which I have heard this sound from a buck.

Newsom says that deer are sometimes unable to locate the direction of a sharp quick sound, and this may well be true, though I have often been able to persuade a deer to turn around and look in the direction of the boat by whistling to it, or by scratching upon the side of the turntable, which carries my cameras.

I have on occasion thought that I could detect nervousness on the part of deer when stalking them at night, or when trying to stalk them, in a high wind. Sometimes those that have been flashed before are rather shy of the jack, but there seems to be a very distinct feeling of restlessness come over them when the night is really windy. I have heard it said that deer were not inclined to come to water to feed on still nights, but this has not been my experience in the Upper Peninsula of Michigan, where I have frequently seen them in considerable numbers and taken many pictures on nights when I could detect no substantial drift of air. Sometimes they seem possessed of an instinctive fear or inclination to take alarm when the cause can not be traced. A number of times I have been distressed to have this happen when I was seeking for a chance to picture a doe with fawns. More than once when the stage seemed set and there was no sound nor scent from the boat that could be carried to the deer, and no possibility of their seeing behind the jack, the doe would suddenly and unexpectedly rush off through the water, taking her little ones out of range with her.

Being ruminants, those animals that chew their cuds, deer are provided with no incisors in their upper jaws. They live on a variety of foods, especially, of course, during the summer, when the different sorts of aquatic plants, grass, tender leaves and buds, and growing crops are plentiful and easy to reach. Photographing them at night is made easier by their partiality for lily pads and roots, rushes and other sorts of vegetation growing in the shallow water at the edges of lakes and ponds. In the spring and summer and early fall, when there is no snow

on the ground and everything is fresh and growing, photographing deer is a comparatively simple matter, and, of course tender shoots, leaves and berries constitute a varied and substantial diet for them at that time. In most localities, after the first cool weather in August, they begin to forsake the larger waters of the lakes and work back to the ridges and smaller ponds. Roosevelt (The Deer Family), as well as Merriam, attributes this to signs of exhaustion of food supply at the water's edge and in the shallow water. In the section of the Upper Peninsula, near the south shore of Lake Superior, where I have followed them, they continue to feed in the water of the inland lakes sometimes as late as after the middle of September. Among their favorite foods in the fall are beechnuts, acorns, and mast in general. Primarily, the deer is a browsing animal rather than a grazer. I have seen them come into apple orchards at dusk and reach up into the trees, apparently after the fruit.

In the winter, the problem of food is a much more serious matter. There are still some buds that may be obtained, but for the most part deer must depend upon twigs and moss, and include in their list the twigs and foliage of winter hemlock and balsam except where the snow is light enough so they may still find mast on the ridges which they can get at by pawing in the snow. Newsom says that sometimes when other food is scarce, they will peel the bark of young trees and eat it, and he thinks that they know the medicinal value of certain plants. Sometimes on the shore of a lake the cedars will show a very definite line below which the branches are dead. This Merriam attributes to the habit of the deer of eating, while standing on the snow on the frozen surface of the lake, such twigs and branches as are within reach. On my last trip into the northern Michigan woods, I looked particularly for indications of this phenomenon. We passed through a small narrow body of water known as Canyon Lake, whose banks consisted of sheer rock, seventy-five feet or so high, on which clung a few scattered trees. Among them were numerous cedars and from as close observation as we could give in passing, it appeared that every one of these, inaccessible as it was to deer, grew green to its very roots. I noticed too in the heart of the woods where the influence of ice

and snow could not be felt as it is on the lake shore, that the cedars generally had the same appearance in their lower branches as those of which Merriam speaks. For some reason these branches were dead several feet above the ground.

As with cattle, so with deer, as well as, no doubt, with many other mammals, salt is an important desideratum. They are quite dependent on it and appear to relish it at all seasons, though it has been my observation that they come more eagerly and more often to salt licks in spring and early summer than later in the season.

When the snow is deep, travel is very difficult and deer frequently congregate in some numbers in what is known as a yard, composed of a network of trails beaten down from daily travel, making it much easier for them to move about. According to Osgood, they will number from two or three to a dozen or more in such a yard as this. It is obvious that no protection is thus afforded from their natural enemies, for it would not be difficult, for example, for wolves to drive a deer out of the yard into the deep snow where it would be just as much at a disadvantage as though no yard had existed. The reason for yards is suggested by Merriam, who says that the deer congregate and remain in one locality until the food supply is exhausted, probably because of the difficulty of traveling in the deep snow. Both sexes of deer occupy these yards, and, while they are generally in a hardwood growth, Roosevelt says they are sometimes made on the ice along the edges of lakes.

It is hardly worth while to comment on the character of the food of fawns, for they have the reputation of relishing most anything they can swallow. Fawns are usually born in May, although occasionally in the latter part of April and sometimes even as late as early June. The weight of a fawn at birth is four or five pounds. I have a print of an interesting photograph taken with a set camera by W. P. Harris, Jr., and H. Du Charme. The camera was set on the thirteenth of October, 1928, and some time during the next few days was sprung by a doe traveling along a beaver runway. She was closely followed by a tiny fawn. Only its head, neck and one fore leg show in the picture, but its diminutive size and a row of spots on its

Photographed by T. Gregory and W. Hodges

A SPIKE-HORN BUCK

neck, plainly visible in the print, arrest attention at first glance. The fawn would stand with the line of its back reaching about to the line of junction between the blue coat and the white of the belly of the doe. Its head from crest to tip of nose appears to be a little more than half the length of the doe's. It seems a certainty that this little fawn must have been born later than the early part of June.

According to Audubon and Bachman, a doe does not produce young until she is two years old and it seems to be the general rule that these young does will only have one fawn that year. Thereafter twin fawns are quite common and probably more normal for a doe than a single fawn after her second year. Rarely three fawns are born. I myself have never seen a doe with three fawns. They are beautiful little creatures, with the brilliant reddish brown background of their coats setting off their very white spots. The combination is invaluable in protecting them from prying eyes when they lie still while the mother is away, looking as they do on a bright day much like a patch of the forest floor, dappled with sunlight. I can not doubt that these spots disappear only when the blue coat comes out, although one fall, as late as the first part of October, I saw two deer together on a number of occasions, apparently a doe and that year's fawn, judging by their relative sizes and their actions, and while the doe was quite blue, the fawn, showing no spots, still seemed to be in the red coat. Of course, this may have been merely an individual variation in the shade of the winter coat. It may also have appeared redder than it actually was by contrast with the blue of the doe.

Fawns are limp and silent when very young and have a great faculty for collapsing completely onto the ground and lying absolutely motionless. It has not been my good fortune to come upon one at this tender age, but people with whom I have been in the woods have told me of finding one close to a trail, of picking it up, and of how when released it sank immediately unresisting, and became at once inert upon the ground, and of how upon the return trip over the same trail this spot was deserted. Evidently the doe will visit her fawn during the day, and it would appear that the little one may rest for considerable intervals of

time unattended in some thicket or under a sheltering prostrate treetop. Osgood says that female fawns will often stay with their mother for two years, while males, as a rule, only follow the doe for the first year. I recently had the opportunity in October to see a number of times, in the same locality, two young spike-horn bucks, always traveling together, without the doe. They were wild deer, coming to a feeding trough which was put out to help the deer of the surrounding neighborhood through the winter. The trough had been in place for a number of years and I feel reasonably safe in assuming that these two spike-horns were the same ones that I saw repeatedly during the preceding March, coming to this trough, always with the doe. Seton is my authority for the statement that fawns are usually left in their first covert for a month or more and do not begin to follow their mothers about until they are four or five weeks of age. I have seen fawns more than once in July, and, of course, later in the summer and early fall, feeding at night in the shallow water with the doe. It is about four months before they are weaned and the shedding of the summer coat with its picturesque spots takes place at about the same time.

Audubon and Bachman's suggestion that a doe will come to the bleat of its fawn if within hearing I imagine must be taken to have exceptions. I know that one of twin fawns which we were endeavoring to photograph became separated from the doe and was left behind, when the latter jumped into our boat and later disappeared into the forest at high speed. The continued bleating of the fawn enabled us to trace its course as it worked its way inland, and was a definite indication that at least as long as it was in our hearing, the doe had not rejoined it. Of course, there is no certainty that she was within hearing, but any other conclusion seems incredible to me, especially in view of the stillness of the night.

Merriam points out that young fawns, even in the spotted coat, are good swimmers. They have such slender, delicate legs as do their parents, that I wonder at the speed with which they can progress while swimming. I have often marveled too that deer can rush wildly through brush and timber, especially when blinded by the flare of a charge of flash powder, keeping their

Photographed by T. Gregory and W. Hodges

FRAMED BY THE BUSHES

footing and choosing their route in such a way as to keep their feet from entanglements and avoid breaking bones. According to Shiras, the Upper Peninsula white-tailed deer possess longer legs than any of the species elsewhere. These slender legs perform admirable service in taking their owner where he wishes to go, with a variety of picturesque gaits, the least attractive of which, probably, is the slow walking pace at which an undisturbed deer will generally travel, carrying its head low. When it is mildly startled, it seems quite generally agreed that it starts off with a canter or two or three leaps, throwing its erected tail from side to side, and then bounds high, turning its head at the same time to detect the cause of the disturbance. I have noted also a curious sort of rack which it employs, and have seen it when undisturbed trotting in a quiet and leisurely manner. Far different is the earnest anxious speed with which it runs low to the ground when observing danger and really frightened. I have never seen one bound with all four feet striking the ground at once, an action which impressed me so when I first saw a mule deer, and I do not think the white-tailed deer ever travels at this gait. Its speed when bounding at its ordinary pace is estimated by Seton at twenty-seven or twenty-eight miles an hour, and though it has frequently been stated as a general principle that when a deer runs with its tail depressed it indicates that it has been hurt, this can not be accepted as infallible by any means. Its long leaps, several feet clear of the ground and fifteen or twenty feet in length, are most graceful, and the power of the hind legs which serve to give it impetus is one to inspire admiration. I have seen deer under the light of the jack rise slowly upon their hind legs and make their first bound with incredible ease and efficiency from a standing start.

In writing of *Cervus virginianus,* which he calls the common deer, Caton says that it had the widest range of any member of the family in any part of the world. He described its range at the time he wrote as from the Atlantic to the Pacific, extending into Canada and British Columbia and penetrating into Mexico, and stated that it was to be found in every state and territory in the United States. Roosevelt spoke of the white-tailed deer as originally far less common in the forests of northern New

England than the moose, but thriving better with the coming of man. It is interesting to note that at the time when Audubon and Bachman wrote, they reported it as rapidly disappearing, concluding that in the northern and middle states where farms had been subdivided and forests cleared, the deer had disappeared because there was no cover to shelter them. Even then it was said to be on the increase in New Jersey and on Long Island, where game laws were strictly enforced. Among our big game animals, it is undoubtedly the best qualified to adapt itself to the encroachments of civilization and maintain itself along its borders. This, however, probably is less responsible for the increase in the number of deer over a large part of the United States since those old days than the adoption and intelligent enforcement of wise protective legislation. I am inclined to think that to this more than to any other single feature should be given the credit for the astonishing way in which the white-tailed deer has held its own and even increased and strengthened its position in the last twenty or thirty years. Speaking of the situation as it existed when he wrote, Seton thought that the species, that is *virginianus*, should be considered practically absent from Ohio, Indiana, Illinois, Iowa, Nebraska, Kansas, Kentucky, the northern half of Missouri and the southern halves of Minnesota, Wisconsin, Michigan, New York and Ontario. The species *virginianus* originally ranged throughout all of eastern North America, from the mouth of the St. Lawrence west to the Rocky Mountains and south to the Gulf of Mexico, according to Osgood, and the subspecies *borealis*, the largest of the white-tailed deer, from Maine and New Brunswick westward at least to Manitoba. E. W. Nelson says that the extension of its range northward in Ontario and Quebec is a development of recent years (The Larger North American Mammals, National Geographic Magazine). In regard to its situation now in Michigan, I know of no better source of information than Dice, whose accuracy and reliability can not be questioned. In his opinion, it no longer exists in the southern part of the Southern Peninsula. Barbour and Allen give its present range as probably all of New England and at least northern New York west to Ontario, northern Wisconsin and Minnesota. The trend of the

changes that have taken place in the range of the moose and the white-tailed deer would lead me to believe that for some reason or other when the deer come into the range of the moose, the latter exhibit a tendency after a time to move on, and the extension of the territory covered by the deer would seem to bear some relation to the clearing of land by the pioneers in the establishment of frontier farms. I conceive that there is a great distinction between this change, which may well have given the deer some assistance in the matter of food, and developments which followed in the wake of these outposts of civilization and which as they ripened into settlements and urban communities did not constitute an unmixed blessing for the deer.

One of the most interesting bits of historical information about the white-tailed deer in the Northern Peninsula of Michigan comes to us from George Shiras, III. He speaks first of the fact that in 1870 it was unknown on the north shore of Lake Superior and that within a mile of the south shore it was scarce because of the activities of the Ojibway Indians. He tells how, in those days, all the deer on the south shore of Lake Superior, including all of northern Michigan and Wisconsin, migrated annually in the spring and fall until about 1885. The exact time of the departure of the does for the north depended somewhat on the depth of snow, but ordinarily they made their move early in May, followed later by the bucks. By early June the migration was over and the deer stayed in their northern haunts until the first heavy north winds and light frost in the fall, sometimes as early as August 15, when does, fawns and yearlings turned once more to the south. In October most of the bucks had also departed. During these migrations, he tells us, the deer traveled in twos and threes, along well worn trails, always with the wind, and always in the daytime, moving through wooded country, depending always on eye and ear for dangers in front. According to Shiras, the great depth of snow in the northern limits of their range was probably the original cause of their fall migration. The end of this migrating habit he definitely traces to the construction of barbed wire fences along both sides of the railroad right of way, which was directly in the path of the migrating animals, these fences forming an obstruction which the

deer would not cross, owing to their unalterable rule never to jump even a low obstruction placed in their line of travel.

In spite of the tendency of the white-tailed deer to extend its range, an individual deer requires a very limited space in which to maintain itself, and may frequently live for years in a section encompassed within a very few square miles. This characteristic enables us on occasion to see and watch during succeeding seasons the same individuals, either in the flesh or through the medium of the story which their tracks will tell. Sometimes I have thought I could identify the tracks of a good buck by the wide spread two elements of the hoofs and the distinct marks of the dew claws, but this is not a reliable criterion. Josef Brunner (Tracks and Tracking) speaks of the tendency which the buck has to drag his legs, resulting in some displacement of sand or snow behind and in front of each track. I have frequently noticed this myself and think it is quite a reliable mark of distinction between the tracks of buck and doe. Beyond that, it is hard to say which is which, except when it is possible to examine, not so much the individual tracks, as the trail itself, noting where a buck has stood near a tree or windfall to scan the country or in the fall where he has pawed up the ground or rubbed his antlers against small saplings.

CHAPTER II

HABITS OF DEER AND DIFFICULTIES OF DAYLIGHT PHOTOGRAPHY

IN THE fall, when the bucks have passed through the tiresome period of nursing their growing antlers, when these have finally hardened and have been rubbed clear of velvet and polished, then the wearers come forth in all their glory, ready to struggle with each other for supremacy and to seek out their mates. The white-tailed deer are said to be the least polygamous of all North American deer, bucks being usually seen with one doe and rarely with more than three. The actual mating season commences late in October, is at its height in November, then dwindles away and is over before the end of December. Then, more than at any other time of year, deer of all ages and sexes remain together in bands of varying numbers.

They have already been for some time frequenting higher ground than was congenial to them in the summer, frequently turning to burnt-over land for the advantage of the cover found there from second growth, for they are fond of cover and wisely seek out places where it is the densest that can be found. The deep forest, of course, could be properly included in this category. In summer the white-tail is more or less solitary, rarely traveling in groups of more than two or three. Any sort of cover near a feeding ground is likely to harbor deer of the neighborhood. Areas partially overgrown with brush, briar patches, and thickets in general are favorite places in which they may hide and skulk, sneaking away quietly, if possible, at the first suggestion of the approach of an enemy. There is no certainty as to where they may be found in the open seasons between snows. I have seen them on the heights of rocky bluffs, as well as in river bottoms, and, of course, the condition of their food supply may determine a considerable concentration of individuals in any given locality. I feel certain from many years of hunting at night with a camera that the head of Mountain Lake is a focus to which most of the deer thereabouts come to feed. This is one of the

little lakes elsewhere mentioned. The insects in the marshy ground where Cliff River comes into this lake are so numerous and annoying during certain seasons that even with our head-nets it has been on occasion almost impossible for us to persevere in shining operations. Yet at such times there appears to be no diminution in the number of deer feeding in shallow water. This leads me to believe that the search for food is the principal incentive to their nightly visits to this particular cove, rather than a conscious effort on their part to avoid insects by immersing themselves in the water. As a matter of fact, I am not sure that I have ever seen them in any considerable depth of water except when they were plainly feeding on lily pads and lily roots, and it does not seem rational to expect that they should leave the high ridges where at such seasons there must be sufficient food for their reasonable wants and come to a place infested with flies, mosquitoes, gnats and other pests, except to find better, more plentiful, or tastier food.

It has been my observation that in their wanderings in search of food, and I know of no other motive which impels them to move about in the summer time, early morning and late afternoon find the deer on the move in sections of the country well removed from civilization where they are not molested and where the presence of man is not noticeable. In the neighborhood of settlements and in localities where there are people moving around every day, deer become largely nocturnal in their habits, although, of course, a few may be seen from time to time during the hours of daylight. It is very likely true that they must drink every night, but this does not necessarily mean that they must visit the larger bodies of water, because, of course, the deep woods are full of small ponds and streams. I have seen deer in considerable numbers in the water all night, feeding, from dark until dawn in the dark of the moon, and have been on the water enough times when the moon was bright to feel satisfied that in that particular section where I have watched them in northern Michigan, moonlight is no inducement to longer hours of feeding at night. Newsom's statement that deer use runways chiefly in coming to water is no doubt true. I know of one very interesting lead which has been used continuously for years, following a

Photographed by T. Gregory and H. L. Beye

READY TO MOVE ON

course throughout most of its length, skirting an inland lake. It crosses at least two streams, one of them where it branches into two well trodden trails. It was very interesting to me to find that within twenty-four hours after this runway had been buried in a foot or so of new snow, the deer had resorted to it again in such numbers as to mark definitely the course of the hidden path. Their instinct and good judgment appeared to be unerring. During their hours of rest, which would seem to occupy part of their time in the middle of the day, they are said to choose places of concealment in brush patches or fallen treetops or under the branches of an evergreen in some convenient thicket to make their beds, which they rarely, if ever, use twice, though they remain in the vicinity and rest more than once in the same bed ground. Tall grass also frequently tempts them to well earned rest.

Often we have followed swimming deer at night with our cameras. They feed while they swim and they also not infrequently employ this means of crossing a bay rather than taking the time necessary to walk around. They are good swimmers and may swim a mile or so, if occasion demands, being able to progress for a time, according to Seton, at the rate of four miles an hour.

It has been said that a deer always shakes its tail before raising its head from feeding. I watched a large buck in the fall of 1928 feeding in a field with other deer, wild deer all of them. I was anxious to note this particular point, and I saw him raise his head without any visible movement of the tail.

Stamping and snorting is a diurnal as well as a nocturnal habit. I have seen and heard deer do this many times in broad daylight. I feel much less certainty in dealing with the question of whether or not deer ever play. I have watched them at a distance running up and down a sand beach, where appearances suggested play, and I watched a doe, accompanied by two smaller deer, for some time through field glasses as they fed in shallow water around the edge of a lake. The two smaller deer stood on their hind legs and boxed with each other, and once one of them jumped clear over the other. Whether this was play or a manifestation of exuberance of spirit, or something entirely

different, I am not prepared to say. Certainly it appeared to me as though the deer were frolicking and they continued feeding together for so long that if they were striking at each other in anger their show of temper subsided very quickly.

Among all the deer that I have seen during the last thirty years, I remember only once seeing a deer fall in its flight. It had been startled by my approach and was scaling quite a sheer rocky slope. It lost its footing and slipped for a moment, but was soon under way again without serious mishap.

They frequently, if not generally, take alarm at even an unfamiliar sight or sound that does not carry a positive and definite message of a known danger. Something unknown appears to them to be worth avoiding, as well as sights and sounds that they know from experience indicate danger. Now and then curiosity may get the better of this instinctive fear, but generally speaking they are very discreet.

The principal enemies with which these helpless creatures must contend in northern Michigan, aside from man, are wolves and deep snows. Coyotes, of course, should be included, and some of the trappers in that country insist that bobcats will kill full-grown deer. The little fawns add to this list foxes, and some say eagles, bears and fishers.

While it is claimed, occasionally, that where they are protected they become a nuisance in destroying farmers' crops and damage orchards, it is my own feeling that the damage that they do by comparison with the useful purposes they serve is negligible. Many have been domesticated when taken very young, but this is not a very safe experiment, as under these circumstances, as Seton points out, they are robbed of the fear of man and become very treacherous as they grow up.

In leaving Seton[1] and the other authors, from whom I have borrowed so much valuable material, I should like to quote a few of his lines to sum up the character of the white-tailed deer:[1] "It is the least migratory, the least polygamous, the least roving, as well as the swiftest, keenest, shyest, wisest, most prolific and most successful of our deer. It is the only one that has added to its range; that, in the North and West has actually accom-

[1] *Life Histories of Northern Animals*—Doubleday, Doran & Company.

Photographed by T. Gregory and W. Hodges

A PERFECT REFLECTION

panied the settler into the woods; that has followed afar into newly opened parts of New England and Canada; that has fitted its map to man's, and that can hold its own on the frontier."

I must emphasize again that in spite of their wonderful adaptability to the conditions arising upon the encroachments of advancing civilization, they do need protection if they are to maintain themselves. I can not refrain from reiterating the great gratification which I have derived from their considerable increase in the Upper Peninsula within the last few years, attributable no doubt in part to the control of the great gray timber wolf and certainly in no small measure to the passage of the buck law in Michigan, with a very short open season, permitting a hunter comparatively few days in which to hunt and allowing him to kill only one buck and neither doe nor fawn. I suppose very likely that had opportunity offered for me to go into the woods during the hunting season instead of in the summer in those years when I was being introduced to the wilderness, I might well have come to enjoy the pursuit of deer with a rifle. Certainly no time of the year has more appeal in the forest than late fall, when the hillsides are ablaze with color, fading out as the trees become bare, when the hours of daylight are short and the nights are long and frosty, and he who would devote himself to the chase must frequently breakfast by moonlight and return to camp in the ever shortening twilight. I never enjoyed such experiences myself until I had for years followed the deer only in summer, when a rifle was distinctly out of place. And so I doubt very much if the sport of killing could ever be a substitute for me for the joy of stalking with a camera.

Even in the early days our ambition to photograph would not tolerate the thought of pictures taken under the artificial conditions imposed by the fences of a park or the protection of a preserve. But in those days we were young and had to feel our way and to learn very gradually by slow experience. Our efforts consisted at first in vain attempts to stalk the quarry across some clearing, or fruitless efforts to adjust the camera in time when coming unexpectedly upon a deer in broad daylight. On one such occasion I thought for a time that I might succeed, though without much justification, as I look back upon it. We

had slept under the moon and stars close to the fire, as the night was cool. Sunrise found me paddling quietly along the shore of one of those little inland lakes, with my camera at my feet. There was hardly enough breeze to ruffle the surface of the water and the stillness was admirably suited to my purpose. A beaver's head appeared unexpectedly in front of me and the animal swam lazily for awhile until the closeness of my approach disturbed it, when it dived, whacking the water with its tail on the way down. My course took me to a spot on the shore by an old skidway, and thence overland past a small pond set in a depression among the rocks, filled with lily pads. Here I interrupted the early morning schedule of a little spotted fawn, which scampered off by itself, presumably to join its mother. Half or three-quarters of a mile farther, I came in sight of the clearing of an abandoned lumber camp and there, as I had hoped, discovered three does. Stalking of this kind is not easy and as might be expected they became somewhat uneasy before I had reached a satisfactory vantage point. One departed immediately, one rested after the first nervous start, and the third came back to investigate. I stopped at once, of course, and for about an hour stood watching with camera in readiness. The denseness of the timber rendered light conditions poor, except for occasional spots of sunlight. Once, during her approach, this last doe stopped less than a hundred feet away from me, with the sun shining brightly on her head and shoulders. Then she turned in a quick dash, with much flourish, only to stop soon and embark upon a careful stalk, bringing her behind me, where she evidently hoped that some breath of air might solve the puzzle of my identity. This was repeated several times, but the results appeared negligible, and the doe finally wandered off without being unduly frightened and without having gained her object, but leaving me quite empty handed. I looked from time to time toward the other doe, where she was lying in the grass, and found it rather difficult on each occasion to bring my wandering gaze back accurately to her position, so well did she blend with her surroundings. The experience proved how impractical is this method of hunting with a camera. There are, however, one or two methods by which it is entirely feasible to photograph deer in the daytime.

It is frequently possible for a photographer, when running downstream in a canoe or boat, with a camera set up in the bow, duly camouflaged with leaves and branches, to ride close enough, as the craft drifts around a bend, for one good chance. Deer will so often hesitate momentarily and raise their heads for a short sharp look before bounding to the safety of the forest.

The difficulty of pursuing this method successfully on the open waters of a lake was illustrated to my satisfaction on an expedition to McKiel Lake in York County, New Brunswick, where we spent something over two weeks in the woods, shining moose and deer and also trying to photograph them in the daytime, with both still and motion-picture cameras. Our camp was at the south end of the lake, which was perhaps a mile and a half long, and from here we made a start whenever weather conditions permitted, with two canoes lashed together and propelled by one paddler in the stern of each. Of course, this craft was cumbersome and not easy to manage, but for motion picture work the available canoes seemed too light and cranky when used separately. There were comparatively few days during our stay when we could undertake this form of pursuit and we were undoubtedly at fault in making a late start each morning, excusable only because of the fact that the shining at night invariably kept us out until well after midnight. Perhaps shining is not a very good term to use for this sport, which I believe is quite generally known as "jacking," but the latter term always suggests to me the presence of a rifle and the intent to kill.

Toward the middle of August, we made our first tour down the length of McKiel at about nine o'clock in the morning under a bright sun and followed in our course by a breeze from the south. Game was plentiful, for by noon we had seen several cow moose and one fork-horn bull and a couple of deer, but not once did we turn the crank of the movie. One cow which came into sight across the lake from us could not get our scent and, though she could see us, seemed unable to satisfy herself as to what we were and remained watching as long as we were visible. Most of the animals, however, were advised of our presence by the breeze, including two cows which received this warning at

a distance of half a mile, walked into shallow water together, and then trotted to shore side by side like a team of horses.

Hope for better luck a few days later engendered by the favorable direction of the wind was justified to a limited extent. Immediately above the dam at the other end of the lake, used for logging operations many years before, we found a cow. Here again the expanse of open water operated against us. Instead of coming on the cow within a few yards of the canoe, as would be the case in river travel, we found her at a distance, and before we could cross the open lake intervening, she became apprehensive at the sound of a doe startled from the bushes close to the canoes, and waded ashore, to stop undecided at the water's edge. When she finally turned to proceed on her way, we were close enough to stop her momentarily with an imitated moose grunt, and ground off about ten feet of film before she disappeared. It seems to be the rule rather than the exception that a moose will stop and turn at the sound of a well simulated grunt. We employed it many times with success. During this little episode, another cow appeared across the lake, and when we turned toward her, we found her quite fussy, undoubtedly agitated by the departure of the first one, but possessed of enough curiosity to induce her to stand and watch our approach. After flopping her ears about for a time to the tune of the movie crank, she mustered up sufficient courage to step out in our direction, but this was only a fleeting demonstration and directly she turned and trotted away, leaving us sixty-five feet or so of exposure.

Success is by no means a prerequisite to the interest and pleasure of stalking with a canoe. I was much gratified on one of our excursions to have even a glimpse of a white-tailed doe with a distinct albinistic tendency, though, of course, it was disappointing to lose the opportunity of photographing her because of the interference of another doe, which appeared and immediately retired again, with sufficient flourish to inspire the albino to desert the scene. She was white half-way up her sides, perhaps a little higher on the fore and hind quarters, and part of the side of her neck was white. It also appeared from where we sat that there was a white blotch on her back between her shoulders.

Photographed by T. Gregory and D. R. Dickey

MUCH INTERESTED IN THE JACK

I was astonished as we were running ahead of a strong breeze on the return to camp to see a cow get our scent and go out in a shower of spray a mile away. These great animals certainly have keen noses. I am not sure that this sense is more highly developed in them than in deer, but it seemed to me during those days when we were watching both moose and deer that the former relied less on their sight than did the deer. I assume that a moose can see about as well as a deer can and it may be that it feels a greater sense of security because it has fewer natural enemies. I am not prepared to account for what appeared to be a very definite difference in the state of mind of these two kinds of animals when noticing the approach of a canoe. According to my observations, the deer retired as soon as some strange object appeared on the scene, without waiting to satisfy themselves that it was in some way connected with human beings. The moose, on the other hand, did not seem to be concerned until they were reasonably certain that they were dealing with man. We were accorded an illustration of this characteristic of the deer on another of those days when there was much of interest to observe, but no resulting picture. The first game to show itself was a splendid eight-point buck, which stepped out through the bushes into the shallow water. We had been lying quietly behind a little point for several minutes before that, but the buck was so far away that it seemed desirable to try to improve our position. A big rock appeared to offer adequate shelter much closer. At first he did not see us and gave us a favorable opportunity to progress toward him by turning back into the brush. Very soon, however, he appeared again and this time caught sight of us while we were still a couple of hundred yards away and before we had made our chosen shelter. One glimpse was all he wanted. He made no noise in going but disappeared quietly into the bushes. Hardly more than five minutes elapsed after we had settled ourselves between the rock and shore, before a doe and two fawns came into view too far away to be photographed. They stayed in sight long enough for only one hasty drink, to turn back then as had the buck, and to slip silently out of sight.

Later in the morning in the narrow part of the lake, I was

much interested in the actions of a good-sized calf moose feeding along the shore with its mother. She moved off a little ahead of her offspring when she stepped out of the water to travel a short distance by land. The calf seemed to have lost her for a moment and hurried along whining a little and apparently somewhat anxious. As she came again into the water, the little one sneaked toward her very slowly and watchfully, as though with the intention of treating itself to a drink of milk without being detected. At the last moment the cow gave a warning half-whine, half-grunt, and the calf jumped out of the way. We thought perhaps it might be possible to cruise across the lake and come up wind along the other shore into range for pictures, but as we drifted along, the canoe was necessarily broadside to the moose, and before we had gone far the cow saw us, though we were still some distance off. She stood looking for several seconds, then turned and walked into the woods. The calf saw her put up her head and look, but did not seem to think of turning to see what had aroused her interest. Instead, it watched her until she went out, and then followed with apparent reluctance. To a moose the appearance of a canoe broadside seems to carry a very different message from that conveyed by such a craft approaching head on. We never succeeded in running close to moose unless we were able to avoid the necessity of presenting a broadside view.

Quite incidentally to our fishing one afternoon, a cow appeared to offer the possibility of a few feet of film as she fed in the shallow water some distance out from shore. It was drizzling off and on at that time and a thunder storm threatened. To return to camp and lash the canoes together occupied only a short time, and in spite of a stiff breeze, we experienced no difficulty in coming into range of our object. In the camera at the time was about thirty-five feet of unexposed film, which gave out just as the cow reached shore, after a most picturesque trot through the flying spray. She indicated no disposition to go until after we had advised her to do so in no uncertain terms, when we had accumulated all the film of her that we desired as she stood with her head under and again looking up, chewing, watching us and wagging her ears.

With all our efforts, these few scattered stretches of motion-picture film were all that we could obtain working from the canoes by daylight, except about ten feet of a doe that we surprised as we slipped around a point of bushes, and ground out while she gazed at us, startled, and then jumped away,—taken a couple of days before we broke camp at McKiel and moved back into the woods to a natural lick.

I think a better method of operation by daylight is to construct a blind near a favorite feeding ground or a lick to which the animals come regularly. It can be constructed of brush, logs, or bark, or even boards, and the deer will get used to it readily. It should, of course, be placed with reference to the prevailing winds and light conditions and the usual avenue of approach of the deer. This is not always possible, but may generally be approximated so as to give a fair chance for pictures in the early morning and just before sundown. The tighter the blind, the less chance of human scent drifting out across the chosen spot to frighten the game. It does require patience to sit sometimes for hours quietly in one place waiting for the sound or sight of game, or for some individual to overcome its natural shyness and step out into the open, but it is no end of fun and gives an opportunity for studying and watching that can be obtained in no other way. It is surprising how quickly senses that have become dulled with long intervals of patient and unrewarded waiting may be quickened and brought to attention by the cracking of a single stick in the distance. Then all weariness disappears and the thrill of the chase takes its place, to fade out only after a successful picture or too long an interval without encouragement from sight or sound of wild life.

An artificial blind is not always indispensable. Sometimes natural cover can be found that lends itself admirably as a screen near some much frequented locality. One such place we found on the shore of McKiel and there we spent several hours on a number of occasions. It was nothing more than a slight depression on the end of a very small point close to a long sand beach and commanding a good view of the shore line, extending several hundred yards before the sand gave place to

rocks and brush at the far end. It was quite the usual thing to see deer on this particular sand beach, sometimes in the morning, sometimes in the afternoon. We could not be certain that they used it because it was accessible to any particularly attractive supply of food in shallow water, but their frequent presence induced in us the belief that it might be more than merely a convenient route from point to point. Nothing is more tiresome and really less worth while than attempting photography of game from a blind where the cameras must be directed at a spot visited only casually. To make such efforts worth while, it is quite necessary that there be some attraction for the deer to bring them regularly and more or less in numbers, and this means either food or whatever it is that they find so attractive at a lick.

It was after six o'clock on our first visit to the little point at McKiel before our patience was rewarded. One of the motion picture cameras had been set up to sweep the beach and we had sat silently watchful for some time, perhaps an hour or so, when we saw a buck in the shallow water at the far end of the sand. He was apparently feeding and his progress in our direction was exasperatingly slow, but he did keep moving steadily along. At length, when it appeared that the range offered possibilities, the crank of the camera was started and the panorama mechanism operated to follow the progress of the deer. For a few feet he came without even raising his head, then looked in our direction and after that, although he continued on his way, seemed nervous and hardly stopped to eat or drink, looking frequently and quite steadily towards us. The wind was favorable and no scent was carried to him, scarcely a breath of air stirring. When the buck was within thirty-five or forty feet of the camera, a twig caught in the panorama crank and snapped, the signal for quick action by our subject. He took first one direction along the beach and then the other, and then went off right over the low bushes, blowing as he went. His rush, however, only carried him a short distance and we could still see him where he stood for a moment, stamping and blowing. These manifestations he indulged in, intermittently, for some time, even as he began to move around. He came at

Photographed by T. Gregory and D. R. Dickey

ANOTHER GOOD REFLECTION

length straight towards us until not over thirty feet distant, where he stopped and stood gazing intently over the tops of the bushes. We could study his head in great detail and at that close range could find a fork on each antler, though one was little more than a bunch at the end. For close to five minutes he stood watching, before bounding off again with more blowing. Soon we saw him once more sneaking up on us, sticking his muzzle into the air and licking his nose in an effort to get our scent. This time he was more discreet and, before coming in as close again, he disappeared and we saw him no more.

On another day we had been on this same little point watching for deer that did not come until after six in the evening. The wind blew freshly from the north, rustling through the bushes and stirring up waves which lapped noisily on the beach. We had been talking in a low tone, but quite steadily, for some minutes when a casual glance disclosed the back of a deer immediately over the low brush in front of us. He was in the water not over twenty-five feet from where we sat, and the only avenue of approach that he could have taken unnoticed by us must have brought him in close beside us after his taking a course up wind. I suppose the fact that we sat in a depression a few feet above the surface of the lake made some difference, and the sound of our conversation was undoubtedly deadened by the noise of the wind in the bushes and the waves on the shore. Although we succeeded in tipping the motion-picture camera so that its field would include the deer, he was really too close and we took only about twenty-five feet. For some moments he fed there in the water, turning this way and that, with his head down most of the time, and once came in as close as fifteen feet. At length he worked around to leeward of us, where, this time, the wind betrayed us. Like a flash he turned and leaped for the timber, never looking up once, clearing the bushes in one beautiful bound, never stopping, hesitating, nor looking around, blowing just once and then vanishing.

We sat again, some days later, for two or three hours, rewarded by neither sight nor sound of deer, interested in observing and estimating the influence of the season on their comings and goings, watching the weather carefully with a view to

shining at night, noting that that day, August 22, at five o'clock: "The wind is still very strong, but has gone down some, the sun is out bright and fine and if the deer are ever going to come to this blind while we are here, they certainly should now after the rain we have just had and the long interval during which we have only seen one here." Again at six fifty: "Nothing has come our way yet. The wind is still quite strong. It seems to be dying hard. The scarcity of deer at the water's edge, after the abundance we encountered until a few days ago, has just about brought us to the conclusion that they have already abandoned the lakes for the inland, even though it is so early in the season. The wind seems to be really going down now at seven o'clock as the sun is getting close to the tree tops, which promises well for tonight, but there is a chill coming into the air which bodes no good for our purposes." It was a new experience to me to find the deer infrequent visitors at the shore of the lake after the first cold weather in August, as this early retirement to the smaller ponds and the shelter of the deep woods is not their custom in the Upper Peninsula. Why they should continue to patronize the shores of some of the inland lakes there, I do not know, but the fact remains.

I have had very little experience in trying to take pictures from a blind, my efforts being limited almost exclusively to the time spent in this way going to and from McKiel and at the lake itself. Our guide had found a natural lick in the heart of the woods not many miles from the crossing of the Southwest Miramichi, where he had constructed for us a blind of boards and bark. It was only about five feet square, with a shelf for the cameras and holes through the boards to give the lenses free play. With the door closed, it was dark inside and we found that we could be liberal in cutting openings for observation purposes. This shelter was placed on the south side of the lick in order to give us the full benefit of morning and evening light. Unfortunately, however, during the few days that we spent there, the prevailing winds appeared to be from the south. As a result, we saw comparatively little game and the pictures taken are hardly worth recording, but the actions of the animals were, as always, interesting in themselves. The lick covered several

THE SHINING SKIFF FULLY EQUIPPED

acres and was the focus of innumerable moose and deer runways. Its central part, on the edge of which the blind was located, was just a wallow of mud and water, trampled and trodden down by many moose and deer. Owing to the nature of the ground there was necessarily considerable dead and down timber, some of which had to be cleared out before there was any chance whatever for photography. Most of the deer that came near our hiding place exhibited considerable reluctance before actually stepping into the open and indulging their craving for the delicious mixture of mud and water in the lick.

I do not know exactly what it is that attracts deer and moose to these natural licks. I have no doubt there is some salt in the waters and perhaps other chemicals, but I have never analyzed them to ascertain the true answer. I know, of course, that they are crazy for salt and to a certain extent depend upon it, as I have frequently brought them in numbers to an artificial lick made by setting out a block of salt almost anywhere in the woods. We found a fine old buck right out in the most favorable spot when we first visited our blind, but, of course, he did not stand, and it was half an hour after we had settled ourselves before a doe appeared, followed at a distance by two more bucks. She acted as though our scent had already been carried to her, for as she neared the lick she hesitated, stood still, stamped the ground, switched her tail, cocked her ears, looked sharply about her and sniffed in the air for further evidence of the presence of human beings. The bucks declined to follow her lead and soon took flight noisily. Although slightly disconcerted, she held her ground and kept working nearer a few feet at a time until catching sight of a cow moose, approaching from a different quarter. At that point she retired quietly, but the moose came along steadily until within thirty or forty feet of the blind, when she too caught the scent and stopped short, looking this way and that, turning her head and rolling her eyes. At length she swung away and worked her way slowly into the woods, without further progress toward the lick. Once again the doe appeared and once more she retreated at the approach of a moose. The latter also disappointed us and we at last became convinced of the fact, which perhaps should have

been obvious sooner, that the direction of the breeze that day was an insuperable obstacle to success.

We watched a doe the next morning for fully three-quarters of an hour, while she came to the edge of the central portion of the lick two or three times and circled back and forth from one side to the other before finally coming in long enough for us to take her picture. It was interesting to see another one raise our hopes for a moment as she came to the water, only to turn almost immediately and start circling, stopping every few feet to look around, sniffing in the air and once flinching very distinctly and ducking her head, undoubtedly due to a fresh drift of human scent. Twice more she came into the water and twice more retreated without stopping to drink. As a matter of curiosity, we counted the number of these approaches and it was only after she had made false starts eight times that she finally took courage and began drinking. We were amused to see her at one point approach a large dead tree which lay on the ground at the edge of the lick, and four times raise one of her fore feet, start to step over the log, and each time change her mind, put her foot down again, and finally change her course altogether.

We did not visit this spot again until our return from McKiel Lake, more than two weeks later. In the interval it had been unmolested, yet our experiences were quite similar to those met with on those first two days. Perhaps the most entertaining incident was afforded by a calf which followed a cow moose into the lick after an appreciable interval of time, coming in without hesitating, climbing over a fallen tree and splashing right into the water and mud. It walked up to the cow and rubbed its muzzle against her side, to which she paid no attention. It was a funny little creature, with such a short neck and short muzzle, compared to its long legs. At first it spent some time standing perfectly still, gazing vacantly off into space. On occasion when the cow looked up, the little calf would turn and look at her, but once when she stood between it and the blind and it saw her turn her head in our direction, it ducked its head down low and looked through at us under the cow, holding its position there for some seconds. Generally,

it found it convenient or necessary to bend its front legs in order to reach the water with its mouth. When a spike-horn buck walked boldly into the lick, the calf went immediately to meet him, poking him with its muzzle in a friendly fashion, but the little buck did not like this and jumped away each time. He departed at the sound of the movie crank, but soon returned, followed by a doe. The actions of the calf and the sound of the movie were not the only things that bothered him, for he kept close watch of the cow as she stood looking at him, and when she took a step or two in his direction, he leaped for the woods and jumped away blowing. The doe followed his example and although they could be seen sneaking back once more, they did not actually come in again. Something excited them and away they went, stamping and blowing furiously. Right then the cow and calf followed suit, although their departure was much more dignified.

A night spent in our cramped quarters offered nothing in the way of opportunity other than a flashlight of a cow. Several of these great beasts visited us before daylight, always one at a time. We hoped, perhaps, that if we left one undisturbed she would serve as a decoy, but in this we were disappointed. I was astonished the next day to note that one old cow, alarmed by the noise of the turning of the camera, could sneak off making hardly more noise than a cat. On the way out she posed for several seconds with three of her feet in front of a log and the fourth stretched out behind, and then carefully lifted this last one across and set it down quietly.

One more illuminating insight into the mental processes of the deer was accorded as we watched a doe on her approach to the lick place both fore feet daintily over a log and at the sound of the camera crank, become startled and quickly draw away, dragging her feet back over the log instead of taking the time to turn around, alarmed just enough to become doubtful, but not startled into flight.

CHAPTER III

METHOD AT NIGHT AND WEATHER INFLUENCES

IN THE early days of our experiments, we did not employ a blind, and after puttering around for several seasons without any very definite system of operation, we concluded at length that the most practical method for us was at night with the aid of artificial light. The location of two salt licks was known to us, each near a homesteader's cabin, and we rather thought that we should have better success at these licks than elsewhere, using the cabins for shelter. The cabins also served in the nature of blinds. Each of these licks consisted of an old dead stump in which salt had been placed. Inexperience in the use of flashlight was a considerable handicap at this time, but we did the best we could, and after packing our apparatus to the nearest of the two cabins made our preparations as well as we knew how. First we set up the camera near the cabin and trained it on the lick, then we bored a hole through one of the logs of the wall nearest the lick and behind the camera. Next we took four large sheets of flashlight paper and fastened them to the outside of the building, one above the other, overlapping each other in such a way that one corner of the bottom sheet extended part way across the hole in the wall. This done, we attached a candle to the end of a long stiff wire, long enough to permit us to push the candle from the inside of the cabin through the hole until its flame lapped the corner of the flash sheets. The shutter was opened and we sat in the darkness at our post by the window to await developments. Soon it became too dark to distinguish objects outdoors, but we could still rely upon our ears to advise us of the presence of deer at the lick. It was not long before we heard one gnawing or pawing at the stump. Hastily, we struck a match to light the candle, which proved enough to frighten off the deer. We extinguished our light and presently the animal returned. This time, although it fled again with the lighting of the candle, we left the light burning, hoping for a second return, and we were not disappointed.

Photographed by T. Gregory and W. Hodges

TAKEN AFTER A LONG CHASE

Carefully then and slowly we pushed the candle through the hole in the wall until there was a puff and flare of light outside, and we were gratified to hear once again the pounding hoofs of fleeing deer. Further listening and waiting brought no more results, so we finally rolled up in our blankets and tried to sleep on the hard floor of boards, which creaked with every turn we made, and under a garret where some sort of animal romped noisily off and on until daylight.

We were up before the sun the next morning in time to see what a good picture we had missed of a big buck which had apparently just left the lick and stood away some two hundred feet, majestically surveying the landscape before proceeding on his way. That night, of course, was a total loss pictorially, as the flash sheets were not fast enough to take the deer in motion or to burn through before the animal could start. Probably we should have known this ahead of time, but we were still groping and we did learn our lesson. That was the first and last experiment with flash sheets.

When we went out again, this time to the other lick, flash powder in bulk was substituted for the sheets, and we fired it by means of matches set in the edge of the powder and ignited by a blow from a hammer. The camera was set as before, and again we sat by the window and watched a full moon, shining brightly in a clear sky, cast strange shadows in the edge of the woodlands, which seemed to our eyes, tired with watching, to take shapes of wild beasts and glide silently here and there, only to vanish mysteriously upon close scrutiny. Hour after hour passed and no deer did we hear or see. We must surely have slept at our posts had not a porcupine obligingly waddled out to the lick and started a vigorous gnawing. This visitor did not appear until one o'clock, when, concluding that no deer was going to favor us with a call, we set off the flash, and rolled in very sleepy and tired and somewhat discouraged. Working with the hammer and match scheme as a basis, we devised a clumsy arrangement whereby a thread could be tripped so as to drop a lead weight upon the matches automatically in substitution for the blow of the hammer. It could also be dropped by hand, which might suggest the use of the apparatus in a

boat, but up to this point our experiments had not comprehended boat work, so we satisfied ourselves with setting it beside a deer run, with a trip thread stretched across and the camera pointed at the place where the deer must strike the thread if using that particular runway. In the arrangement, no provision was made for the automatic opening and closing of the shutter, which necessitated a visit to the camera after dark and again before dawn to perform these operations by hand.

Our first set was on an apparently well traveled runway, extending inland from a little sandy beach through tall marsh grass. On the sand there were always myriad tracks made by deer which had probably stopped for a drink where a stream of cool water poured itself into the lake. When everything was put up as well as possible, we pushed off in our boat and drifted idly on the still lake in the hope that our flash would go off early in the evening and save us an extra trip, but nothing crossed the thread during the next few hours. Mosquitoes finally became so troublesome that our patience gave out and we went ashore and took up the "trap," in spite of the fact that in approaching it we startled a deer not far inland, apparently on its way to the lake along that very runway, judging by its indignant blowing and the direction from which it came. I have always known that distinctive sound that the deer make as "blowing," though I think it is frequently referred to by others as "whistling."

There was something about that quiet drifting around on the lake that made a strong appeal. Imagination was given full play and in the contemplation of silently and stealthily searching out our subjects on the still surface of the water in the darkness, with the light of a lantern to guide us, we derived inspiration to seek out a practical way of putting this idea into practice. Taking pictures from a boat at night is really simpler in many ways than setting out an apparatus for the animals themselves to trip, but it is distinctly more laborious and requires infinitely more patience. We realized that the first essential, perhaps, was the ability to guide the boat silently on a still night. Even the drip of the water from the paddle as it is raised from a stroke is sufficient to disturb the game.

To overcome this, we practiced fan paddling, dipping the paddle deep, making a stroke slowly, avoiding at all hazards contact between paddle and boat and bringing it forward on the return without lifting it from the water. To do this successfully necessitates sacrificing speed in favor of silence. This is really no drawback. Occasion seldom arises when the chances of success are not enhanced rather than diminished by a slow and careful approach. In fact this has been so impressively demonstrated on numerous occasions that I have always preferred a flat-bottomed boat, when available, to the lighter and more easily manageable canoe. The boat has such a marked advantage in the all important quality of steadiness. We have used one of these flat-bottomed skiffs now for many years. It is pointed at both ends and in addition to the bow and stern seats has a rowing seat in the middle. The gunwales near the stern are padded against possible accidental contact with the paddle, and backs have been fitted for all of the seats. It is surprising what a difference this makes along about two o'clock in the morning. A socket is clamped on the decking in the bow through which the pole of a turntable slips, to lodge on the bottom of the boat. The whole apparatus pivots easily on the end of a nail driven into the pole and filed sharp enough to embed itself lightly. The pole is carried through the bottom shelf of the turntable and socketed in its top. Some protection from dampness and bad weather is afforded the cameras by this type of turntable when they are placed on either side of the pole on the lower shelf. Our reflector light, which is just an old fashioned kerosene carriage lamp, generally referred to as the jack or jacklight, is carried on top of the turntable. I am not certain that this is the best kind of light to use. I have always liked it because the light is evenly distributed, but I think, perhaps, a good electric torch without any focusing lens would be more satisfactory. Certainly it would be easier to find the deer in the rays of such a jack, but long established habit is rather a stern master, and I doubt if I shall ever make a change.

This confession applies even more to the method of operating the shutters of the cameras. We have always focused our

cameras at twenty-five feet and opened the shutters when starting out, even with the jack lighted. Its light upon the water or the shores is insufficient to leave any image on the plates. Simplicity of arrangement is a great thing, and the less apparatus and the fewer details to be kept in order and checked, the more likelihood of success, generally speaking. At least that is my view. It is entirely possible by the use of an electric flash gun to hook up the shutters with the gun in such a way that the flash itself will trip them at high speed. The advantage of this system over the primitive methods which I have always followed is quite obvious in eliminating slight motion of the boat or the subject, thus serving to make perfect pictures which would otherwise be failures. So I do not necessarily recommend my methods to others, but I am used to them, and I like to use a flash gun which discharges the flash through the medium of burning gun powder. And after all, the main object, as I see it, is to enjoy the sport without being too particular about accumulating pictures and eliminating all possibility of error.

When we first decided to attempt photographing from the boat at night, we had quite a struggle in devising a flash pistol out of an old 32-caliber revolver and at that time thought it necessary to connect the primer of a blank cartridge, from which the wad and powder had been removed, with the flash powder by a guncotton fuse. We have since abandoned the guncotton. The gun, which we have used now for a number of years and which has given great satisfaction, is a reliable model of 22-caliber, double action, single shot pistol. The barrel has been sawed off, leaving just enough to thread, so that it can be screwed into a metal shield, which serves the double purpose of reflecting the light from the flash and affording protection to the hand holding the pistol. We have a low containing wall, perhaps half an inch high and two or three inches in diameter on the horizontal surface of the shield, into which a half-ounce of flash powder is poured, and discharge the flash by shooting into it the gunpowder from a cartridge from which the bullet has been extracted. Leaving the powder in the open is not a perfect arrangement, especially if there is much wind or dampness in the

air. It has to be watched because when flash powder becomes at all wet it cakes and is then quite explosive. It surprised me when I first tried this arrangement to find that, although the distance from the firing pin to the flash powder is perhaps four or five inches, when the gun was fired I could detect no interval between the discharge of the gunpowder and that of the flash powder.

Speaking of the propensity of the flash powder to cake and become explosive reminds me of one of the first occasions when this happened and what a shock it was to hear and feel the resulting explosion when only a quiet puff and flare of light had been expected. We were still novices at the time and quite pleased with ourselves in finally getting a picture, which gave every promise of being in good focus and showing the whole deer. It was really a ridiculous looking affair, as the doe stood facing directly toward us, with her head stretched out and held low, giving her the most awkward imaginable sort of appearance. I should not think of pulling the trigger on such a chance now, but the amusing part was our consternation at the roar of the gun and the unexpected snuffing out of our jacklight. It must have taken a considerable concussion.

In the pursuit of moose we used an extra heavy charge of powder, part of which was a specially fast grade. The dark color of the animals and the fact that they were likely to be moving their ears or their heads persuaded us of the necessity of such a charge. Some trouble was anticipated because we felt quite certain that the fast powder would be more explosive than our normal charge. With this in view, we had tied the gun to our canoe, enabling us to recover it on two occasions when it flew into the lake and would otherwise have been irretrievably lost. The poor old gun finally balked and refused to work, just when we were hoping for a second shot of a big bull, the cause, no doubt, being traceable to its too many duckings. Every now and then the light is extinguished even now by an explosive charge, although we try to exercise every precaution to keep the powder dry and uncaked.

When we had finally fashioned our old 32-caliber revolver into a workable flash gun, we watched impatiently for a night

in the dark of the moon when the wind would be negligible and the temperature high enough to justify the expectation of finding deer in the water. Within half a mile of our headquarters lay Pine Lake, and inasmuch as this first effort was distinctly experimental we thought it wise to choose this nearest available hunting ground. It did not offer as good a shore line as could be desired, for all trees within fifteen or twenty feet of the water's edge had been killed by high water, leaving a waste of deadwood, which extended some ten feet out into the lake and through which it was very difficult to obtain a clear view of a deer, even though it were feeding in shallow water. On that first night, however, we were not much concerned over this feature. The pleasurable excitement experienced at the thought of an opportunity at last to take a real picture left little room in our minds for anything else.

After following the shore for about an hour, we had turned for home and were about to cross a shallow deadwood-bordered bay from point to point, when the cracking of a branch attracted our attention and soon the ranging jack caught the glint of an eye. A signal from the bow sent the boat in the right direction and before long a doe became visible well back in the deadwood. Most of the time during the approach her head was held low by the water's edge and now and then we had a glimpse of her eyes gleaming in the darkness. When our progress was blocked at length by the trunk of a fallen tree, we fired the flash though nothing but the head and neck of the doe were visible and though, as we discovered upon development of the negative, we were forty feet away from our subject. These features of our first venture troubled us very little. Merely to see a deer, to have our gun go off, to find the image subsequently upon the plate, added fuel to our burning enthusiasm, and the gratification and satisfaction of hearing the deer flounder to dry land and bound off to a safe distance, and of knowing at the same time that no amount of running and jumping could have the slightest effect upon our trophy, were as great then as they are now.

Not long after this first effort another chance offered with a night that was warm and perfectly still. Again we chose Pine

Lake as our time was limited because of a moon which promised to appear at midnight and because Pine Lake was the nearest of any of those inland waters to our headquarters. As we passed near the river on our way to the landing, a deer scrambled up the steep sandbank and dashed across the trail in front of us. It was a wonderful night, so still and so warm, canopied by a sky of unusual clearness and brilliance. Hardly a sound disturbed the silence, save the repeated muffled hooting of owls on all sides of us and the occasional lonesome cry of some far-off loon.

Out on the quiet water we had progressed hardly more than two hundred yards when we heard a deer on the shore. But here the water was shallow a long distance out and the scraping of the paddle on the sand must have scared the animal, for it did not permit us to come within seventy-five feet before taking flight. We started another one in the deadwood soon after passing through the first narrows, unable to see it until too late because of the interlaced stubs and logs and branches. This happened once or twice more before we finally came upon a doe out in the open water. She was in to her neck and was wading straight out toward the boat when the gun was fired. This time no flare of light and dull boom followed. Only the click of the hammer, but even a feeble click was enough to strike consternation to the heart of the doe, and she turned like a flash in the water and leaped for the shore, with us in pursuit. The second pull of the trigger set off the primer, but no powder. Of course, the deer was soon out of range and, needless to say, no picture would have resulted even though the flash had gone off at the second pull.

Another half-hour of silent and watchful paddling brought us an unsatisfactory shot because we were compelled to maneuver to avoid a small branch between us and the deer, close to the lens of the camera, and so much time was thus occupied that the deer had turned before the shot. Shortly thereafter the moon came up and the owls stopped hooting. Nights such as that one, with the stillness and the warmth continuing hour after hour, are rare. I am not sure that this is of much importance in deer shining, but in all the years of my experience,

there has been a tranquillity and satisfaction associated with such nights which I have never felt when shivering or stiffened from the cold, or struggling with a troublesome breeze, or worrying and wondering how soon a shifting wind might favor the deer and destroy all chance of success.

In almost every variety of weather I have found deer in the water and taken pictures, but on many occasions I have had no luck at all when all conditions seemed favorable. I have sat about nine o'clock in the evening, waiting for complete darkness along toward the middle of August, unable to notice a breath of air stirring, only to be met a half-hour later, when moving toward the chosen sphere of operations, by a strong south wind. I think very likely that had this particular night not occurred at the end of the dark of the moon, our efforts would have been abandoned on the spot because it seemed impossible that we could find any adequate shelter on such a night. Fortunately, we did persevere and when we came to the cove at the end of Mountain Lake where Cliff River flows in, we could hear deer all along the shore and actually counted six or seven, and I think before daylight we had accumulated about a half a dozen pictures. I thought it would be a splendid idea to take as many as possible in natural attitudes, and I remember how long we had to wait, watching a little doe, in order that we might not record her in an awkward pose, until finally she looked sharply toward the mouth of the river, with both ears thrown forward. Once in a while natural positions are graceful and effective, but more often I have found them otherwise.

I do not mean to cite the experiences of this night as indicating that wind may be disregarded, even blowing from the right direction, and even if the air is sufficiently warm. I still cling to my preference for absolute stillness, because too often we have toiled manfully to reach this same sheltered cove, only to find no deer in the water and none in sight, and the surface of the water disturbed clear up into the reaches of Cliff River itself. Perhaps a slight difference in direction, not noticeable from the boat, or increased velocity or a variability so trivial as to appear negligible, may make all the difference. Of course, when the wind reaches the dimensions of a gale, or de-

Photographed by T. Gregory and W. Hodges

SHE LOOKED SHARPLY TOWARD THE RIVER

velops into a storm, it is useless even to consider embarking. It is an almost invariable rule that some lee must be found from the full force of any considerable breeze before it is possible to manage a boat successfully in the approach for a picture,—where always so much silent drifting is required, and stopping and starting and changing of course, and frequently long waits when the boat must be held motionless. To maneuver in such fashion, with any degree of silence, without protection against the play of the wind, is almost out of the question, even assuming that its direction is favorable. Of course, the slightest breeze carrying the human scent from the boat to the deer is fatal. I have tried more than once, but I think always unsuccessfully, to retain a strategic position in the face of a persistent breeze, and it is most exasperating. It does sometimes happen that the boat may be pushed forward into range and the flash set off at exactly the right moment, without the necessity of waiting for the deer to accommodate its position to the ideas of the man at the gun. It is very discouraging, however, and quite a hopeless undertaking to come into range in a breeze, only to have the subject move off or strike an awkward pose, or indulge in some characteristic nervous jerks, and then to find, when everything else appears in order, that the boat has drifted well out of range and to be subjected to the necessity of trying to repeat the procedure. It never seems so simple to come up the second time.

I never had this more forcefully illustrated than one night when a rising wind came out of the south. We could find very little smooth water and no place where the effect of the wind was not noticeable. From the shore ahead of us an old dead tree projected into the water and behind this we sighted a doe. She was standing with her back to us, looking around now and then at the jack, and it was not until we had slid in quite close that I noticed a tiny fawn beside her. Before we could get into range this little one took two or three great jumps, which brought it out onto the beach directly opposite the boat. There it stopped, its fore feet planted wide apart, bleating a little as it gazed into the brush, with head held so low as to be invisible from my position in the bow. I could only keep the jack on it

by swinging the turntable to such a position that the rays of light extended at right angles to the line of the boat. This made it almost impossible to fire the flash without either fogging the plate or running the risk of burning my face. I still hoped, too, that doe and fawn would meet again and concluded to wait for this chance. Meanwhile the wind was slowly drifting us away, and by the time the fawn looked around to nose along the sand a bit and investigate the jack, we were out of range. Before we could make up our lost ground, the doe became mildly alarmed and moved off, and the little fawn seemed to understand without audible commands. It followed immediately in the longest jumps it could manage.

Two deer eluded us once in circumstances such as these. It is rather out of the ordinary to flash two together, and when the opportunity appears to be offered, only to be snatched away at the last moment through the caprice of the wind, I am always a little more disappointed than at the loss of a shot at a single deer. These two that I speak of were feeding on the bushes, perhaps fifteen feet from each other, when we first found them, both quite well hidden from view. Shortly one came into the open for a moment, but I allowed the chance to pass, hoping always for both together. The wind was strong and shifting from time to time, drifting our boat at length to within ten or fifteen feet of the deer, where we watched them for some time, now and then seeing their eyes shine, and again having them deliberately turn their backs on us. Why our scent was not carried to them sooner, I do not know. We were making every effort to keep control of our craft, but in spite of it all were finally carried so close that only six or eight feet separated us from the deer. At this point, one of them became alarmed, either because she saw us over her shoulder with the aid of the moon, which had recently risen, and owing to the fact that our boat was broadside to her, or because at last the wind betrayed us, and away she went with a rush, taking the other one with her.

One other windy night remains vividly impressed upon my recollection because of the success which attended it. We sat in our rocky camp at the narrows of Mountain Lake in the gathering dusk, watching the waves running ahead of a sub-

OUR ROCKY CAMP AT THE NARROWS OF MOUNTAIN LAKE

stantial breeze from the south, debating whether or not to venture out. Again we were influenced by the approaching nights of moonlight and determined to make the attempt. This was in July, when it is my impression that storms and winds are more frequent and the weather generally less settled than later in the season. As a matter of fact, we had expected that we might have to strike our tents and abandon our camp that day, because we had only just reached its shelter the night before when a threatening storm broke with a rush of wind out of the northwest, and torrents of rain. Only the shift of direction into the south and consequent rising of temperature induced us to hope for one more chance. That night our party divided and I watched the jack approaching around the point for the first time. The gleam of its light on the water was very picturesque, though I should think it would frighten the deer. They must notice it, but I suppose they catalogue it as some sort of a moon.

As we approached the head of the lake, but long before we were close enough to see anything by the river, we could hear a deer wading around a short distance up stream and finally we came close enough to a small island of rushes, which lies in midstream right at the mouth, to see over their tops a doe and a little spotted fawn feeding close together. For some time we waited, motionless, or as nearly motionless as possible, hoping that they would come straight out, but at length concluded that we must back away in order that there be no chance of their passing on one side or the other of us on their way to the more open waters of the cove. At this point the breeze was still troublesome from the southwest and we experienced no little difficulty in holding the boat still. Soon the deer came slowly down to the island bar and we pushed over to meet them, for this spot offered an ideal setting. They did not stop there, however, but proceeded on down around the end of a point of bushes at our left. Our boat had been pushed into water shallow enough so that it rested on bottom. Perhaps this was a tactical blunder, as we were now subjected to the necessity of following along behind the deer, which is generally a little difficult and uncertain. Deer stop and start so unceremoniously

when they are not alarmed, or are on the alert and are guided only by passing whim or fancy, that it is not easy to reach proper range, eliminate motion in the boat, and have the attention of the animals at the same moment. On this occasion we felt hopeful as the little fawn was very calm and well behaved, staying right by the doe and following closely wherever she went, and their progress was unhurried. Fawns are so full of life and so playful that usually, even when out at night with their mothers, they cavort about considerably and are not inclined to remain long in one place or to forego the pleasure of flighty excursions up and down the shore, unattended. Neither this particular doe nor her fawn had looked towards our jack at all up to this point and both appeared entirely unsuspecting until a wayward drift suddenly gave us away. The doe took one jump as though shot and the little fellow followed. Then they stopped, turned towards us for a second, whirled again and leaped out through the bushes. No one who has not tried vainly year after year to obtain a good picture of a doe and spotted fawn together can appreciate the keenness of our disappointment. It was, however, compensated for in large measure by the good behavior of a very fine buck, which permitted us to record him in a picturesque and striking likeness, but we did nearly lose him too because we reached him when his head was under water and before it came up the wind had swung the boat. Fortunately, we realigned it before too late.

I used to think that in our particular section of the north country a light wind from the west or northwest gave the best promise of a still night, but I am not so sure now. Here, for example, is a passage from my notes of July 23: "Has been hot all day, with strong southerly wind. Wind has died down very considerably. It has been very threatening all day and then rained a few drops, but it is beautifully clear now." This was at about six forty-five in the evening and that southerly wind did go down and gave us a fine calm night. Then several nights later, as late as eight o'clock or thereabouts, the breeze was still fresh and a storm threatening. The sky had been overcast all day, with occasional glimpses of the sun, considerable thunder, some cold northwest wind and several drizzles of rain.

Photographed by T. Gregory and W. Hodges

TAKEN WHEN IT WAS ACTUALLY RAINING

Yet, the early part of that night fulfilled all of our requirements for shining. It was warm and the lake still as a mill pond as far as we could see in every direction, and this condition prevailed until after midnight, when lightning began to bother us and a little breeze came up. And then here is a day that started fine and clear—and this was in September too, when the weather should be more settled—with a fresh west wind and the temperature around seventy-five degrees. At four o'clock the wind came out of the northwest and then ran true to form, and went down altogether, but not for long. When it once more made itself felt, it had shifted to the southeast and the clouds were beginning to bank. At six-thirty came a sprinkling of rain and an hour later a hard shower, with considerable thunder and lightning to the south of us. It did not last long, but recurred again within the hour and left the trees still dripping when we went out shortly before ten, with the temperature down to sixty-four and the wind fresh from the southwest. I guess, after all, the weather does just about as it pleases and may be kind when least expected, and may be harsh without reason.

I think, perhaps, we had better luck that night than we were entitled to in view of the rain. We saw a number of deer and heard others, and had several shots, one of which was a nice picture of a little spike-horn buck. Ordinarily deer do not move around much after a rain, although when they are in the water they will sometimes remain for some little time during a light shower or a drizzle. One young buck accommodated us this way and the picture was taken when it was actually raining steadily. We were glad to get him, too, because the formation of his antlers was a little unusual. Each was long, with undeveloped points clustered at its tip. I am not sure that we should have persevered long enough to take this picture except for the fact that the rain caught us when we were out in the boat right near a favorite feeding ground. We have ordinarily felt rather shy about making any efforts in the rain, or immediately after a rain. I do not mean that this has been a hard and fast rule, because I am sufficiently enthusiastic about the sport to take advantage of almost any opportunity to shine, though the

outlook be far from encouraging. No doubt, this is foolish, judged by results. Perseverence and tenacity of purpose are frequently rewarded, it is true, but the reward is seldom commensurate with the effort.

A number of years ago, camped in August on our favorite lake, we had an unusually difficult situation to meet in our competition with the elements. It had been cold, as cold as forty-eight degrees anyway, and during the early morning it rained hard and the wind blew, coming eventually out of the north. When it was dark enough to get under way, there was still some wind and the temperature remained low. As we were in the very act of getting into our boat, the rain started again, so we put our apparatus under cover and waited until it had stopped, then loaded up once more, and this time succeeded in getting across the lake from our camp, when again it commenced to rain. We turned back to camp, but the shower did not last and the sky gave promise of clearing, so once more we set sail, to be rewarded almost at once by a very fair picture of a doe. Now that seemed to offer good prospects, but during the rest of the evening we only had a chance to fire the flash gun once more. An extra large charge of powder of fast grade had been used. There was so much dampness in the air that the charge became caked and the combination was sufficient to cause considerable of an explosion, which blew out the lamp and threw the gun into the lake. Altogether a discouraging sort of a night. After that second shot, the wind and cold and scarcity of deer decided us to return to camp. How much the rain had to do with keeping the deer away from the water I can not say. The fact that we did find some may have been because there was not more or heavier rain, and the fact that there were not more deer out may perhaps illustrate the general proposition that they do not like to move around much when the woods are wet.

Earnest and conscientious effort on a night when the conditions were somewhat similar gave us a sight of four deer, and one picture. I think this effort is entitled to be so characterized because we started about nine-thirty in the evening, just after a light drizzle, and returned to camp the next morning at three thirty-five. But it wasn't quite so cold that night and that

SEEING THE LAKE FLATTEN OUT
AND BECOME DEAD CALM

makes all the difference in the world. I summed up the results at the time like this: "The night was fine between drizzles, excepting for a little breeze which bothered us now and then, but the deer were certainly scarce—probably due to rain." I have seen this same apparent effect on the actions of the deer after a rain when there had been no precipitation after the middle of the afternoon, althought it usually means that the afternoon rain was rather heavy. The effect of an approaching rain storm, if any at all, seems to be different. More than once under a black and threatening sky I have started out into the darkness of a still warm night and found the water along the shore of some little inland lake full of deer. There is such a thing, however, as tempting the elements too far, as I did on one of those nights, when there was not a breath of air stirring and the sky was entirely overcast, with great black clouds hanging low. As we moved up the lake, we heard a tremendous rushing, roaring sound coming from the direction of the south end, and it was only a matter of a few seconds before a perfect deluge struck us, and we just had time to get the cameras under cover. In fact, the rain was so heavy that we had a little difficulty finding our landing on the return to camp.

Sometimes I have sat for four or five hours waiting for the lightning and wind and rain to stop, hoping for an hour or so of fair weather before daylight, but even though this be vouchsafed, the ensuing effort is seldom worth while. There are, during a given dark of the moon, so comparatively few nights entirely suited to deer shining that it is discouraging to sit at dusk watching the wind go down with the sun, seeing the lake flatten out and become dead calm, and noting the appearance of a deer here and there on the shore line; hoping that no unfavorable change of the elements may take place, feeling certain that the deer will do their part, apprehensive at the appearance of clouds on the horizon; and then to have every fear become reality when the wind rises and the clouds spread over the sky and the rain starts, a gentle drizzle at first, soon to become a steady downpour.

But wind and rain are not the only elements to be contended with. The temperature of the air also plays a most important

part, although I have taken pictures when it has been as low as the low forties and again with the mercury standing as high as eighty degrees. Generally speaking, the warmer the night, the more numerous the deer feeding in the water. Cold nights not only seem to discourage them, but make it much less pleasant for the photographer. Such nights, too, are frequently accompanied by mist, which sometimes only occasionally clouds the outlook, and again is so dense as to make picture taking impossible. The summer sun beating on the water all day heats it considerably, and when the temperature of the air drops rapidly after sunset, as it so frequently does in the north country, condensation takes place over any inland lake, as its waters cool more slowly than does the air. Cloudy days are therefore to be welcomed as a measure of insurance for the night, provided rain does not follow. I think mist was largely responsible for two of the most uncomfortable nights I ever spent in the pursuit of deer pictures. The temperature on the first of these nights was about forty-seven. I have frequently been out when it was several degrees lower than that without noticing it unpleasantly. On this particular occasion we were investigating the environs of an old lumber camp, long since abandoned, on a narrow arm of Mountain Lake. At the tip of this arm, or bay, was a tamarack swamp, and the mist which drifted thence in great white clouds seemed to go right through us. It took me an hour or so to get warm in camp lying wrapped in blankets and as close to the fire as I dared get. To add insult to injury, we neither saw nor heard a deer.

The same results followed on a later expedition to Trout Lake. We did not reach there until after dark and found the surface of the lake covered with mist so dense that our light made no impression on it whatsoever. The lake is not more than a quarter of a mile across, making the trip around the shore altogether too short to sustain one's interest on a cold night when no wild beasts appear to be at large, except a few hardy and elusive beavers. It did not take us long to make this discovery, but at that stage in our experience we had had so little chance to get rid of superfluous enthusiasm that we kept going until nearly dawn with an hour out for a bite to eat,

THE MOON STILL SHINING BRIGHTLY

something hot to drink, and a fire by which to get warmed. Aside from a couple of futile efforts to photograph rapidly swimming beavers, whose heads appeared and disappeared during the chase, according as the mist drifted away or became denser in front of the boat, we did nothing with our apparatus that night. Really the best part of the expedition was the return to camp. When we reached Pine Lake, we met the dawn, and looking back over the tree tops toward Trout Lake, could see the darkness of retreating night, with the moon still shining brightly—for I must confess that in addition to the other unfavorable influences, we competed that night with the full moon. We reached headquarters just in time to photograph the sun getting up out of Lake Superior.

That was a discouraging session. I am not sure, however, that we profited by its lesson. We did, for the time being, forego further shining in the moonlight, but we did not learn from this experience, and have not yet for that matter, and very likely never shall, to respect the weather and not to venture out when the temperature is so low that the mist rises in clouds, merely on the chance of getting one, or possibly two stray pictures. For a stray picture is just as likely to be preëminent as one taken among many, and as a matter of fact, I have had some very fair luck shooting between drifts of flying mist. On the other hand, I can count a number of lost chances where mist intervened at the psychological moment and when it had cleared away the opportunity was past.

CHAPTER IV

ACTIONS OF DEER AFTER FLASH

IN THE early days of our shining exploits it took more than cold weather, mist, and moonlight to deter us. There was a trout stream, at that time offering good fishing, not far from our headquarters, and to the mouth of this, the Salmon Trout River, we made a regular pilgrimage for a number of years. It was a real stream and would take a boat for some distance above the spot where it emptied into Lake Superior. On one of these fishing trips it occurred to us that it might be distinctly worth while to take our apparatus and try to pick up a few deer pictures in spite of the fact that the dark of the moon was past. Deer frequented the river in numbers, as demonstrated by the many tracks upon almost every sand bar, and we devoted two nights to earnest effort, without success.

It was cold on the second night, so cold in fact that our fingers became numb, even in buckskin gloves, and the mist from the river chilled to the bone. In order to avoid exposing the plates to the direct rays of the moon, we kept the shutters closed, except when a bend in the river brought us with the moon at our backs. At least that was the theory. So, after paddling for some distance with the moon in our faces, when we came upon an enormous buck standing knee deep in the rushes, with antlers that seemed to extend indefinitely into the air, it was, of course, necessary to open the shutters. To accomplish this with benumbed fingers was not such an easy task, and although the boat was being held in good range and the buck was standing broadside, waiting patiently and watching the performance, so much time was necessarily consumed in limbering up our fingers that the flash was not fired until he had slowly turned his head and was looking straight before him, listening intently and ready to jump on short notice. Very little fault could have been found with such a picture, but what we obtained instead was a negative covered with spots and streaks, made by the moon in its course across the plate as the boat moved up and

down the river and turned back and forth in its progress. Inasmuch as the shutters were in good working order, the only conclusion to be drawn was that our brains had been benumbed as well as our fingers and all the effort expended upon the shutters, which so tried the patience of the buck, was directed toward closing them instead of opening them. Our disappointment was somewhat tempered by what we thought to be the unique discovery that we could successfully shine in the moonlight.

The Salmon Trout never was very good to us and a couple more trips on its waters definitely determined us never to bother with it again. We had already been out four or five nights in succession before reaching the river. Lack of so much sleep is a serious handicap. I doubt if I should have tried to flash a deer leaping rapidly through the water under other circumstances. She was wading diagonally down stream ahead of us, up to her shoulders in the water, when we first saw her. Some sudden drift must have carried our scent to her for without warning she turned and leaped up stream past the boat. I never cease to marvel at the jumps which these graceful creatures can accomplish. This doe was carried from her position in deep water, clear of the water by a foot or so. As she jumped, I swung the turntable and fired the flash. It was a sort of hopeless shot, but as a matter of fact the quick turn of the table did compensate partly the motion of the jump, though it carried the cameras too far. The head and shoulders alone showed on the plate.

A passage from my notes made at the time shows what results from too many sleepless nights. "Last night we paddled up and down stream for a while without seeing a deer. I was awfully sleepy, having been out for the last six nights, and went to sleep for about ten seconds while paddling. I awoke with a start, to find the boat making no progress against the current. It certainly was a strange sensation." I remember how eagerly those in the boat were peering first to the right and then to the left for the deer, which they were sure I was stalking, while the prow swung slowly inshore.

I have lost quite a number of pictures because the deer was

moving at the moment of the flash, or because the boat was drifting, or on account of an unexpected start by the animal while the hammer of the flash gun was in the very act of falling. In our method with the shutters open there is no way to guard against movement on the part of the deer, but with patience and care it should be possible to eliminate all harmful motion of the boat, except under extraordinary circumstances. If the boat is headed directly for the subject, no blur results from its even motion as it slides slowly over the water. If, however, there is the least drift sideways, or if the turntable is not pointing in exactly the same direction as the boat, then the resulting picture is almost certain to be a failure.

Once in a long time, by sheer good luck, gun and turntable can be so synchronized as to eliminate what would otherwise be fatal motion. It happened this way to me once in photographing a small fork-horn buck on Pine River. We had been well up stream and were coming close to our home camp when we found him mostly hidden by rushes and bushes, quartering away from us. The boat was sliding along close to shore and the turntable was not behaving very well, squeaking a little whenever we swung it. We did not have time to back away and make a direct approach, and were therefore under the necessity not only of directing our cameras by means of the turntable, but also of firing the flash at the same instant lest the deer take alarm at the squeak of the apparatus. The buck evidently heard the noise for he appears with his ears laid back. Fortunately he was undecided for a fraction of a second and hesitated just long enough for a picture before whirling and bounding off.

Sometimes deer move so quickly in such short sharp jerks that they will change position without the man in the bow realizing that this has been accomplished until the negative is developed. We took one old buck, thinking that our shot would show a splendid view of his head as he reached high to pull leaves from a tall bush, but the result gave us only a back view, and that partly concealed in the branches. It was only interesting for a curious formation in one of the animal's antlers, which carried a long tine near its base, extending backwards.

Photographed by T. Gregory and W. Hodges

WITH HIS EARS LAID BACK

One of the finest bucks that I have ever seen was lost to us because of motion in the boat, which really should have been avoided. He was well out in the open water when we first discovered him, but seemed to be a little jack shy and flicked his tail as though he were about ready to go when we came close. He did not wait for us, but waded slowly toward the end of a nearby point of rushes, stopping near the shore. There he stood for a long time, peering away from the jack into the shadows, motionless, even after the bow of the boat had touched the sand and while we sat watching. I was at the paddle and tried to work in a little closer, which proved to be a grave mistake. The buck turned his head like a flash when he heard the hiss of the skiff on the sand, and at that instant the flash was fired. Unfortunately, the boat was rocking slightly, just enough to ruin what would otherwise have been a very striking shot, and so slightly as to be impossible to notice in the bow. For some time this fine animal stood watching after the flash and then waded slowly up stream.

There was no moon to hamper us on either of those last two nights on the Salmon Trout, but the earlier experience there with the big buck was not the last of its sort. I have tried it many times since, generally, however, just for amusement, because I happened to be out on the water when the moon rose. A shot in the moonlight is really just luck. Ordinarily the deer seem able, with the light of the moon, to see enough of the boat to satisfy them that danger lurks behind the jack. I do not know, of course, whether they merely glimpse a shadowy outline, a silhouette against the moonlight, or whether the effectiveness of the jacklight is so neutralized that they can identify the boat for what it really is. I came silently into Cliff River Bay once after a fruitless effort in the Lumber Camp Bay on Mountain Lake, overtaken between the two points by the rising moon, to find two deer standing together, anxiously watching the approach of the light. One stood broadside to our course, the other, immediately behind, looking over the back of its associate. The moon was behind us, and just as we tried a shot, both animals jumped and were off. It does not seem to take very much of a moon to give us away, and deer frequently see all they need to

in the light of a mere sliver, and on other occasions when the moon is hidden behind clouds and its light greatly diffused.

On the way up the lake that night, we followed a loon for some little distance, never close enough to try for a picture, but having at times a fine view of the bird, watching its action as it laughed and noting its open bill when it had finished. I have always hoped that I might flash one of these characteristic inhabitants of the north woods, but it has never been my good fortune, though I have repeatedly turned in vain towards one. I might have had a chance to record a young one on one occasion, but I was so much interested in the antics of the old bird, which skittered around close by, making a great racket, that I failed to notice the little one until it had floated right up to the light and along the side of the boat to where I sat before diving out of sight. I like to hear their lonesome cry at night. It always seems like a good omen. And it is amusing to see half a dozen together. They seem to have so much fun playing around, skittering on the water and uttering that curious scream of theirs, which sounds somewhat like the cry of a hawk or gull.

Again in the moonlight a little buck amused me; he became much interested in the jack as we approached, only to turn suddenly and hurriedly scramble out. I did not understand his actions until I looked around and saw that the moon had just appeared. The performance was repeated a few minutes later by a little doe. She took a beautiful pose as we came in, alert and watchful, with head and ears up, but while we were still thirty-five feet or so away, turned unexpectedly and fled in silence. Once in a while, if the boat can be brought close enough before the deer's attention is attracted, the flash can be fired quickly when the animal first looks up in that momentary pause before flight. I succeeded surprisingly well in this way with an inexperienced spike-horn buck. We had been busy all night and as there were still a number of deer moving about, we slipped into the cove by Cliff River just as a sort of experiment to see what could be accomplished. There we found, well out in the water, this spike-horn busily feeding. He did not look up until we were within range, so it was a simple matter

Photographed by T. Gregory and W. P. Harris, Jr.

HE SHOWED NO INCLINATION TO MOVE

to take his picture and as he showed no inclination to move after the flash, we reloaded quickly and came up again for a second shot. This was too much for him, however, and he left unceremoniously. It was rather extraordinary and certainly very unusual to have him stand after the first flash. Perhaps it came so quickly that he had had no opportunity to take advantage of the moonlight, and it may be that it blinded him in a measure the way it always does a human being.

The man at the paddle has the worst of it as far as the blinding effect of the flash is concerned. He must always be on the alert to respond to signals until the last moment and he can never be quite certain just when the flash will explode. Its effect is sometimes quite confusing and never was more so for me, I think, than just after a very effective shot of a small buck standing straight on a grassy island, almost perfectly reflected in the still waters of the lake, gazing directly at the jack. I was at the paddle, and the flash blinded me very badly and made me lose all bearings. I hit the boat several times with the paddle and generally messed things up, yet could see floating somewhere in my vision every now and then the figure of the buck, motionless. He stood stock still for a long time and then waded up toward the river, where we left him. This is not unusual. Deer quite frequently hesitate before retiring, or move off slowly after the flash, though they seldom stand long enough for two shots. To reload without frightening them requires some time and considerable care, and can not be done effectively unless the boat is taken behind a sheltering point or somewhere else under cover. This is one of the chief advantages of the Cliff River cove at the head of Mountain Lake.

The lake itself is about three and a half miles long, with a very narrow part perhaps two miles from the north end. At the south end, Cliff River comes in and at its mouth are many lily pads and numerous islands of rushes, as well as other food on the bottom. Right here it seems as though most of the deer in the district come in the night to feed. There are people fishing on the lake and on Cliff River almost daily during the summer. This seems to have the effect of making the deer somewhat shy in the daytime. The result is a situation which probably

differs from that found in places more distant from civilization in that the deer, apparently unable to attend at their favorite feeding grounds during the day because of their natural timidity, are largely nocturnal in their habits. They feed in Cliff River and in Mountain Lake at the mouth of the river and up and down the bushy shore on either side of the mouth. The hills rise on all sides and afford very effective shelter from the wind, and the situation there has this other distinct advantage, too, that only a couple of hundred yards north of the mouth of the river a rocky point extends into the lake, affording an excellent shelter which is quite accessible and makes it possible to rest between trips into Cliff River Bay and to allow the deer in the neighborhood to quiet down without necessitating long and tiresome paddling.

I think the most interesting experience that I have ever had in flashing the same animal more than once without its leaving the water was furnished by a splendid old buck. Drifting idly out on the bay, listening intently, we heard a sound indicating deer, but had hardly turned in that direction when there came to our ears a heavy careless splashing from the direction of the river. It was unmistakable. It could only be from the tread of a big buck. He did not carefully pick his way, as a doe would, but plowed right ahead, shaking the water from his ears now and then and plunging his head well under to feed. We could distinctly hear the water dripping from his antlers. Several nights had gone by without the sight or sound of a buck and that fact, coupled with this one's careless and enthusiastic method of feeding, indicated pretty plainly that he had not been in the lake for many nights. He reminded me on a small scale of some great bull moose that had come to his favorite lake after a long absence, utterly unmindful of everything but his own appetite and its satiation. He was large bodied, with a fine set of antlers, but they were submerged as we came into range and when he lifted his head once more, he glanced only for a second at the jack, just as a slight drift of wind swung the boat out of line. I directed the light and the cameras toward him by a slight turn of the table, but he had already looked away. Then without waiting, he turned around, quartering

NUMEROUS ISLANDS OF RUSHES

towards us, gazing past the light. This brought him too close and made it certain that a picture at that moment would be a failure, but I was confronted with a rather delicate situation calling for desperate remedies. Another stride or two would bring the buck so close that he must surely see us in spite of my best efforts with the jack. The flash would in all probability send him careering ashore, but it seemed the only hope of preventing a certainty of discovery. If we waited, the chance for a shot seemed irretrievably lost. I had to gamble and fortune favored us. He was such an independent old fellow that after his first startled jump at the flash, which brought him to within a few feet of the bow, he looked into space for a while and then proceeded nonchalantly with his feeding, while we backed out as quietly as possible, keeping the light of the jack playing upon him, fearful lest we ruffle his calm serenity. It took but a few moments to slip around the protecting rocks of Cliff River Point, and when we came again into the bay we found the buck still there, and drifted up and flashed him as he stood broadside, looking straight ahead. He looked around, apparently mildly annoyed, and then continued his meal. Once more we reloaded on the other side of the point and repeated almost exactly the preceding picture, except that this time the buck was looking directly at the jack when the shot was fired. That offended his dignity too much and he stalked slowly away up the river.

I have never, before or since, had three shots at the same deer, one right after the other, without the animal leaving the water. In fact, in my experience it has only been occasionally that deer will stand for more than one flash. I do not mean that they always rush immediately for cover. I think that is the ordinary reaction, though it has many variations. Sometimes a deer will jump in a startled manner and then proceed very slowly toward the shore. Once in a while it will stand motionless after the flash, gazing at the light as long as it is in view. I have, too, seen a deer with very little interruption continue feeding in the same place, and on occasion stamp and blow without moving around much. But more often than not, when the boat has been carefully backed away after a shot and taken far

enough so that it was possible for us to reload gun and cameras without alarming the deer, and when, as far as could be told, the deer was left undisturbed, it was not to be found on the return trip. I always try to watch and note what happens after the flash, but sometimes its blinding effect is sufficient to prevent any observations. Occasionally it is possible to notice this effect on the deer and then I always wonder at the skill with which the animal can get through deadwood and underbrush without breaking a leg. One little doe made us wait some moments before she pushed through the brush into the shallow water, and we were still further delayed by the interference of twigs and branches before we finally had a shot, as she raised her head to look at the light. She was quite badly blinded by the flash and stumbled and blundered around for some seconds before she could get out, and on sound footing. Once there she expressed her resentment very definitely by stamping and blowing. It almost seems, sometimes, as though the deer actually expect this manifestation to drive off the invading jacklight and whatever strange forces accompany it, though I have no doubt that their principal object is to advise others of their kind that danger lurks in the neighborhood.

Once in a while, the deer's apparent indecision or change of heart is most aggravating. This was true of a doe which we flashed deep in the mud and water close to a picturesque grove of white birches. We had just experienced a trying few minutes seeing a deer step out of the water into the bushes as we drew near, watching its head and eyes as it browsed there, and then having it move off and leave us. Perhaps, then, we were in a measure justified in being too impatient and taking a homely picture, instead of quietly waiting for the doe to move out of the mud. As we watched her action after the flash we were convinced of our mistake. At first she was not frightened at all, but gazed at the light for some time before climbing leisurely out into shallow water, stopping now and then to watch the jack, or switch off flies. Finally after standing in one spot for fully a minute, looking boldly towards us, she moved off a little further, and only then took fright and jumped and gave the alarm.

Photographed by T. Gregory and W. P. Harris, Jr.

WITH ONE FOREFOOT RAISED

Photographed by T. Gregory and W. P. Harris, Jr.

AS SHE STOOD AGAINST THE BUSHES

Photographed by T. Gregory and W. Hodges

NIBBLING LEAVES AND OTHER CHOICE MORSELS

The strange part to me of the reaction of deer to the flash is that there does not seem to be any reason, that I can follow, dictating the various ways in which they respond. A deer may be looking directly at the jack and take alarm instantly when the shot is fired, or it may be looking directly at the jack and possibly offer a second shot. One doe at the head of Mountain Lake was very accommodating in this way. She actually waded out toward the boat and kept right on when we stopped, until she had come into nice range, and there she halted and began stretching her neck trying to see past the jack. When she finally did hesitate a moment, on the alert, with one fore foot raised, I took advantage of the opportunity. Contrary to expectation, there followed no wild rushing about, but this animal, in spite of her alertness, waded slowly on down to the shore and it was no trick at all to reload out in the bay and overtake her as she stood against the bushes watching us come up. This time she jumped at the flash, and bounded away at once. Why one shot should leave her indifferent and the other drive her off in fright is inexplicable to me.

It seemed almost as extraordinary, more so in some ways, to find the shore lined with deer upon a warm August night, to flash a little doe and to notice that no single deer moved from its tracks, as far as we could tell. Again we reloaded in the bay without moving into shelter and in this way were able to pick out once more the same doe. There seemed a possibility that she might move over close enough to the river to join another, and so for fifteen or twenty minutes we lay still watching her move about in the shallow water, nibbling leaves and other choice morsels, until we could finally be satisfied that the prospect of two together had passed. When the light flared out this time, all of the deer in sight or hearing retired in haste. I think in all the years that I have shined, those three occasions, and the one to which reference has already been made, on which a spike-horn was taken twice in the moonlight, are the only ones on which I have succeeded in getting more than one picture of the same animal, knowing that it was the same. One other time, however, a very fine buck, which we photographed, rushed from the water immediately, but returned for another picture

about an hour later. We could identify him quite positively by his antlers. He stood for the first shot in very shallow water, out in the night, with nothing behind him to catch the light and break the striking effect, as he threw up his head and looked fearlessly into the eye of the jack. I was thankful for a short focus lens, as this appeared like a fleeting opportunity which must be seized at once, and we were still, I judged, thirty-five feet from the buck.

Very different was the reaction of a doe which did not make a move at the flash, but wandered along the shore twenty yards or so, while we were backing away, and finally went on into the brush without making any disturbance. She had every reason to be startled into precipitous flight too, because that particular flash exploded with a tremendous roar.

Even more indifferent was a spike-horn, found feeding among some rushes. He only looked up just as we came into range, and, after the picture, stood still some seconds, then wandered off haltingly a short distance, and was still standing there when we backed out of sight. I like to be able to watch them, and read, if possible, the puzzling thoughts that are going through their heads, although I confess they are difficult to understand.

A doe, taken in the shallow water at the foot of a rather steep and heavily wooded bank, gave me just a glimpse of interesting indecision. We had been following her a few yards until she turned, became uneasy, and looked about as though trying to make up her mind what to do. I pulled the trigger as she approached the shore and stretched her neck out over a log and hesitated preparatory to jumping. She continued her jump all right, but stopped when fifteen feet or so up the bank, gazing away from us up at a fallen tree for several seconds, then continuing on her way and blowing intemperately.

I was amused at a very small doe that we came on early one morning as we swung around a bend in Cliff River. The first faint streaks of dawn were beginning to show, making it impossible to remain longer on the open water of the lake. This little doe jumped into the bushes as soon as the light flared up, but she stopped when only half-hidden from our view. Perhaps she thought she was entirely sheltered, or maybe she was just mustering up courage to look around once more.

Photographed by T. Gregory and W. Hodges

AS HE THREW UP HIS HEAD

Photographed by T. Gregory and W. Hodges

RETURNED FOR ANOTHER PICTURE

I think next to immediate alarm and hasty retirement, the most normal action to expect from a deer subjected to the startling effect of the burning of a charge of flash powder in its face, is to have it jump and then wade off slowly into cover. I have seen it happen frequently, and sometimes when the animal is quite alert and might be expected to make a more rapid retreat. This course was followed by a nice buck of about eight points, of which we succeeded in taking a picture in a rather picturesque setting. There were four deer in the water, all visible in the light of the jack, and between us and the deer a great blue heron craned its neck preparatory to taking flight. As we closed in, the heron took wing, but its flight had no effect on the deer, other than possibly to make them a little more alert. Two of them rushed out at the flash, and the sound of their going and the sight of the flying spray in contrast to the slow wading of the buck left an impression full of spirit and interest.

I have never been entirely satisfied as to how much or how little attention deer give to the flight or squawking of a heron as it takes wing unexpectedly to disturb the silence of a quiet night. I remember one other time when we found almost the same picture waiting by the mouth of Cliff River. This time we thought to flash the heron, but it flew just too soon, and the three deer feeding close together all became uneasy and left the water. I have not had very much success in photographing these birds. In fact I can only remember three times in all these years when one of them remained long enough to give me a chance. The first of these times the bird sat on a deadwood branch overhanging the narrows between Second and Third Pine lakes, six feet or so above the water. I did not notice it until we were very nearly directly underneath. In those days the socket for the turntable on the bow of the boat consisted only of two nails driven into the decking to form with its edge a triangular opening through which the pole could slide. It was, therefore, possible for me on this occasion, at the last moment, to tip the apparatus in such a way that it pointed toward the bird, by simply pulling it back part way through the nails. The result was not very good, but we were fortunate to get anything at all because a drizzling rain commenced almost immediately

after the shot. Another heron allowed us to approach close enough for a chance because it awoke from a sound sleep only just before the flash. Its flight took it up the dark reaches of Cliff River, and in a few moments we had come on it again on a dead tree leaning out across the stream. I suppose it was the same bird, although I can not be absolutely certain. This time we were waiting for a nearby deer to come into the picture, and the result, as is so frequently the case, was the loss of both deer and heron. Once more, a few nights later, we took this same bird, or one of its kind, on the same dead stub outside the mouth of Cliff River. But more often than not we have heard that characteristic squawking and rustling of the bird's wings as it passed overhead, long before coming close enough to bring it within the range of the jack.

I always get something of the fleeting impression of the long neck of a heron when seeing a deer attracted by the jack, craning its neck and making ridiculous efforts to look above the light, or below it, or to the right or to the left, to find out, if possible, what makes it shine. One little buck indulged in this for several seconds, even after the flash had gone off. It is curious how often deer either ignore the jack altogether, or gaze intently away from it. There is something about the flickering progress of the light along the bushes, or perhaps the action of their own shadows, that appears to arouse and hold their interest, and it is an almost invariable rule that when a deer is flashed on the alert, looking away from the jack, it will wheel about and dash off in a direction opposite to that of its gaze. I can only conjecture as to the real explanation. It is certain that in such cases the animal is ignorant of the presence of the boat and of the direction of its approach. It is undoubtedly startled and confused at the moment of the flash, and I feel satisfied that it connects the explosion with that mysterious flickering shadow or light on the bushes, which it has been watching, and instinctively turns to escape from the unknown danger. It may well be, too, that the reflection of the light on the shore line as it flares up for a fraction of a second, has a startling effect. I suppose every instinct leads them to believe that the noise and the light came from somewhere in the direc-

Photographed by D. R. Dickey and T. Gregory

A NICE BUCK OF ABOUT EIGHT POINTS

THE DARK REACHES OF CLIFF RIVER

tion in which they were staring, and are to be avoided immediately at all costs. This, of course, frequently brings them uncomfortably close to the boat, but is not ordinarily a serious matter with deer, though quite a different story in the pursuit of moose. I have often wondered how many of the stories of charging moose were really attributable to this peculiar propensity. Sometimes moose and deer, while looking away, will give way to their apprehensions even before the flash is fired, and come charging past the boat in clouds of spray.

We used to shine along the west shore of Mountain Lake for many years some distance below the mouth of Cliff River, and there was always one particular spot on the shore of a rather deep bay where we made it a practice to take in our oars and settle down to the serious business of the pursuit itself. We never counted on finding deer until we had slid around the end of a protecting point. One night, however, we came unexpectedly on two deer some little distance apart in the water. We had hardly more than turned toward the nearest one, which was standing looking off toward the shadowy forest, when she suddenly took fright and whirled past the boat to jump away up the shore. Such a performance, however, is rather unusual and not as easy to explain as the action of a tremendous buck, which we finally took quartering away from us in order not to lose him altogether. He too came past the boat, covering us with spray and plowing through the shallow water to the brush, as soon as he could get his bearings.

CHAPTER V

REACTION TO PERCEPTIONS OF BOAT

THERE is one phase of taking these flashlights, which I do not enjoy remembering or referring to, but it affords some amusing illustrations as to the actions of the deer and, therefore, perhaps deserves some attention. That is the failure of the flash gun to perform its function. There really is no excuse for using a gun that will ever miss fire, because if the mechanism is of good quality and is well taken care of, the chance of missing should be about as great as the chance of finding a defective cartridge. For one reason or another, however, I have had my gun miss fire a number of times, and the sound of the click of the hammer is most disheartening. As a rule it has just as much power to frighten the deer as the most explosive charge of flash powder. One of the strangest experiences I have had with the gun missing fire was in a shot at a little doe. She stood on the rocks close to the water, offering a chance for an effective picture, but the gun missed fire on the first pull on the trigger. I pulled again as quickly as I could, and this time the flash went off. Now this particular doe jumped at the sound of the hammer striking the cartridge, so that the flash caught her as she turned for this first jump. She then stopped and coolly surveyed us before continuing on her way into the woods.

I lost a good chance at a nice buck by having the gun miss fire on the first pull. Again I pulled the second time as quickly as possible, but the buck had jerked his head and started to jump in the interval. It seems to be characteristic of imperfect action in such a gun to have it fail at first and then fire the cartridge without any apparent reason for this difference in effectiveness. The effect on the deer is almost uniformly to cause alarm. Even when it is possible to shoot twice before the animal moves off, there is almost invariably enough motion to ruin the chance. One little spike-horn showed more than the average amount of courage at the sound of the disquieting click of the hammer on a misfire, and tarried a moment or so and

Photographed by T. Gregory and C. S. De Long

OFTEN THE LIGHT ON THE BUSHES
FIXESTHEIR ATTENTION

never did exhibit undue haste in his retirement, but walked off a short distance and then stood around and stamped and blew. His actions were rather unusual from the time when we first found him. He seemed inclined to jump away from the jack each time we approached and we had great difficulty getting close enough to try a shot at all. I only have record of one other deer exhibiting as much self control. She jumped in a startled way as the hammer fell, dropped her head as though trying to look under the jack, then straightened up and stood peering at it until the boat had drifted to within eight or ten feet. Then she turned, ran off a short distance, hesitated once more, and went on out.

Usually the sound of this inoffensive click of the hammer upon the primer seems to inspire fear as readily as almost any other noise. I have never known several deer to remain in the water close together after the gun has missed and offer us further opportunity, as they sometimes will after the flash, and as they did once at Mountain Lake on an unusually warm still night in September. We were just in the midst of a stretch of weather which was almost unbelievably good for that season of the year. For two or three days and nights we had to sit idle because of the moon, impatient for the chance to begin shining, fearful lest the weather change at any moment. On the fourth of September, the night was warm and still, and the sky cloudless, and as we came into Cliff River Bay, we found four deer in the shallow water. Our tactics were not perfect. We had turned towards one of them, guided largely by sound, before discovering that it was too deep in the rushes to be reached, and before realizing that another in the open stood not far away. Experience had taught us, however, the danger of attempting to pass a nearby deer, thus leaving it outside the rays of the jack and giving it every opportunity to see the boat and sound the alarm. In dealing with these, therefore, we resolved all doubts in favor of conservatism, and waited as close as we dared to the nearest deer until it finally turned away and waded back out of our reach. Just then one of the others passed close to another, too far away for us to catch them that way. This one was a splendid buck and when he stopped in clear water

we took the initiative and moved right up. We succeeded all right, but without much margin of safety, because on our course the boat brushed against a few rushes, and when this sound was carried to the sharp ears of the waiting buck he set himself for a jump. For several seconds after the flash he stood perfectly still before wading off. One of the others jumped a little, but none seemed frightened, and when we came up again, after reloading out in the bay, we found two of them still there, one moving out in our direction from the river itself. Here a muskrat splashed, breaking the otherwise absolute silence of the night, and the wader turned, bounded off, and disappeared. By that time the last deer had wandered away and we had no further success with this little group.

There is frequently room for debate on such occasions, as to the proper course of action, whether to wait for both deer to come together, or to make the best of what the nearest one offers, or to take the long chance and seek out the more distant subject. One of my earliest recollections of finding two deer in the light of the jack carries with it to-day, as vividly as when it happened, the disappointment that followed the sight of the nearer of the two splashing noisily across in front of the boat after having satisfied her appetite, finding us out as we tried to pass, giving the alarm, and departing with the second one, to leave us momentarily disconsolate. I did once succeed in getting by not only one deer, but two, to reach a third. The last was quite restless, though she did not seem to mind the light until we were within thirty-five feet, when she looked up suddenly and seemed to back up a step or two, apparently on the verge of jumping. Here she lowered her head and peered at the boat from a different angle and had raised it only slightly at the time I was ready to fire.

Speaking of the fleeting moment when two deer stood side by side on that still September night at Mountain Lake, it may seem strange, but it is a fact, that only three times have I been able to photograph two full-grown deer in the same shot. The first of these pictures I should not repeat were I to have the same opportunity now. Our boat had been lying quietly on the water, and we were hoping for the approach of a deer from

Photographed by T. Gregory and W. Hodges

ONE OF A GROUP

some distance up stream, when another one splashed noisily into the water from the bushes close by. As we turned in its direction, we could hear one more following through the brush. This first one, a good-sized animal, turned its head to watch the other, and the difference in their sizes made us hope for a moment from where we sat that they might be doe and fawn. As a matter of fact, the first was a good buck and the second a spike-horn, and as we moved in their direction, they stood watching us, side by side. Just too soon the spike waded across between the other buck and ourselves, and as he cleared I pulled the trigger. He was not considerate enough to stop, and I was so anxious to have a record of two that I chose this moment, knowing that the progress of the spike would somewhat blur his image.

The next picture of this kind perhaps should not be called a record of more than one deer because, aside from one doe which stands out well in the foreground, there is little more than a suggestion of others some distance back of her. She illustrated very well the lure of salt. She was at a lick as we approached, but did not wait, and I thought surely we had lost her. We turned away to proceed on down the shore, and noticed just in time a stealthy form stealing past the boat toward the lick. As we swung inshore again, I caught sight of another deer standing directly in front of us. Before we could get in range, both became startled and fled, but I noticed that they stopped not far away. At that moment I could count four deer in the tall grass. We had not long to wait before one of them walked right down to the shore in front of us, two more following at a distance. All were nervous, so I dared wait no longer. That was in July, when I think we are more likely to expect deer to be attracted to salt than later in the season. It rather surprised me once to see a doe pass a number of apples, which we had laid on a sand beach, without paying the slightest attention to them, and walk straight to some salt where we had placed it in a piece of deadwood. When she reached it she stopped immediately and commenced licking. This was on the twelfth of September. I merely refer to that as an interesting incident, though there was not much chance of a picture.

Two deer in the rushes, both nervous and jumpy, possibly because of a slight drift which may have carried them some indication of our presence, gave me the last of those three shots of two deer together. One of them turned away at first, and then changed her mind and took a course back in our direction. The second one pursued almost identical tactics. It followed along past the first deer, then in its turn swung about, and for just a moment both stood motionless. We were close enough so that I could take advantage of this good fortune, but here another unforeseen difficulty developed. There were so many rushes about the deer that it was necessary to push the bow of the boat into their outskirts and it so happened that one tall reed stood very close in front of our lenses. It looks in the picture a good deal like a fence post. Rushes are in general a nuisance. They not only obstruct the view, but as they rustle and scrape against the side of a moving boat carry a message of warning to the deer.

We learned this early in our experience. An exploration of the shores of Conway Lake had shown us so many tracks leading into the water that we were inclined to believe it worth a trial. The rushes growing quite far out from shore constituted the only serious objection, but at that time we did not understand how serious. Our first and last trip over there served as a liberal education. Our boat was old and leaked badly, making it very unsteady. Not long after the start there was so much water in it that the slightest movement by one of us sent it careening to one side or the other, while the water sloshed back and forth around our feet. At the lower end of the lake we encountered a breeze, and more than once turned in to shine the waves as they lapped the shore, mistaking their sound for that of wading deer. One buck was flashed, and a doe, each sufficiently distant and indistinct to make its image rather difficult of identification, perhaps, to one who had not seen the picture taken. Yet I still remember the excitement of working up against the breeze, eventually catching the welcome gleam of eyes in a quiet bay, and plowing after them through the rushes, only to have their owner turn in each case, impatient at our rustling approach, while we were still at least

Photographed by T. Gregory and C. H. Hodges, Jr.

THE LURE OF SALT

ten feet out of range. Sometimes, if deer are not in the water in great numbers, the boat must be pushed through rushes where the only available animals insist on remaining in their shelter.

There is a narrow channel of open water at the head of Mountain Lake, which lies between the bushy shore and a considerable expanse of rushes, and sometimes the only access to deer feeding in this sanctuary is straight through the troublesome reeds. We found one deer here that took fright and disappeared at the sound of our approach, but came into the water again very shortly. This was rather exceptional conduct on her part. In following her, our course took us toward the mouth of Cliff River, where we could hear another deer in the water. When we progressed far enough to be able to see the second deer, it was also at that moment visible to our first subject, and her actions created a very definite impression that she took alarm at the sight of this second animal, for she snorted, jumped past the boat into the bushes and walked across the end of the point. It was this point that had separated us from the deer at Cliff River. Our only course was to continue and try to photograph the deer that remained in the water, but even as I pulled the trigger, the first one blew, and the response of the other to the alarm was immediate, leaving us with a picture of this deer with flag up, just as she turned for her first jump. Now, I can not imagine one deer being frightened at the sight of another, and I can only guess that some wayward drift of air or slight sound from the boat was the cause of this alarm and that it came at that particular moment purely by coincidence.

Sometimes the same effect on the deer is accomplished by the sound of the boat as it grates on the sand, or by the scratching of a stub or branch rising from the water unobtrusively, noticed too late to prevent its contact with the boat. Even more difficult to notice and guard against is the underwater stub, which may have just as devastating an effect as it scrapes and rattles along the bottom of the boat. But, of course, the most damaging influence of all is the human scent. The difference in the normal reaction of a deer to any scraping

sound and to the message carried by a breeze laden with human scent was illustrated by a doe which looked up as the boat ran aground, gave every appearance of being annoyed, but responded only by wading slowly away, until the shifting breeze carried our scent to her, when she jumped as though she had been struck, and disappeared in haste.

I suppose the dispositions of the individual animals have something to do with the way they respond to these various alarms, or perhaps some of them have keener noses than others. I know we tried once to close in on three deer which were close together, and although two of them got wind of us and ran off blowing, the third stood her ground and allowed us to take her picture deep in the water. I am reasonably sure, too, that deer in the water, very definitely advised of our presence through the medium of scent, will on occasion move off quietly. There is no other way to account for the retirement of a buck which we were following on a warm July night, when a slight shifting breeze ruffled the water from time to time, and lightning flashed occasionally in the distance. There were several deer about us and in approaching this buck we ran aground. He moved off a little and joined one of the other animals, and there these two stood for some little time, feeding close together. Diligent efforts to reach them were unavailable, because, in trying to keep them always in the light of the jack, we were somewhat handicapped in the choice of our course and grounded again several times. None of this appeared to bother the buck, but when the wind slipped past us in his direction, he gave evidence of understanding the meaning of its portent and waded quietly away. We gathered the general impression that night that the deer were unusually skittish and I noted at the time: "The breeze has been drawing into the bay so much that the place is probably permeated with our scent and all the deer made shy. A loon laughed at us as we went up to shine, and gave a couple of lonely cries, and the owls were much in evidence." A doe acted the same way, although she had stood for some seconds after the flash, giving that characteristic start which indicates so plainly that the presence of man has been detected by scent.

Photographed by T. Gregory and C. H. Hodges, Jr.

FOR JUST A MOMENT BOTH STOOD MOTIONLESS

The best view I ever had of such action was of a very small doe. She was so small that at first I thought her a spotted fawn, until we got quite close. For some time she stood just in the edge of the bushes, looking off inland, and then turned around and walked past the boat within two or three feet at the most, so close that I could have touched her. I kept the jack trained on her carefully, and watched her flinch as the hot scent reached her, stare for a few seconds in a bewildered way up into space in our general direction, and then jump for the brush to blow her indignation. They do not always seem certain what to do under these circumstances. I expected to have a good chance at a doe which we found facing away from us, because she was busily feeding, with her head down, and never looked in our direction until a drift of air carried our scent to her. Then she whirled around, rushed past the boat, stopped momentarily to look at the jack, and fled into the woods. But I think the most extravagant actions I ever saw were taken by a doe that once stood in the rushes watching us approach. We did not really expect to succeed in this case, because the wind was eddying around a point of land ahead of us, and it was a pretty stiff breeze too. Just before we came into range, the doe got quite a whiff of scent and plunged frantically past the boat along the shore and stopped, leaped out towards us, coming to within five or six feet of where I sat, turned again to dash out in front of the boat, stopped once more long enough for the gun to be fired, and again tore for shore just at the flash, leaving a wild looking image on the plate.

I used to notice once in a while, when raising my hand high at the last moment, partly to be sure that the flash was well away from my face, and partly as a signal to the man at the paddle that I was about to fire, that the deer would become unduly curious and raise its head to peer eagerly over the jack. It did not occur to me at first that the explanation was plain, although not so very easy to understand. It has happened so frequently that I am satisfied that when my hand goes up, the shield of the gun made white by the deposit left by burning flash powder comes within some sort of glow or reflection of the light sufficiently to be visible to the deer. For example, we found a

doe apparently unconscious of our approach, and, as we came into range, she looked away momentarily, then turned to follow the shore at right angles to the line of our boat. At this point I raised my hand high to signal for the boat to stop, and the doe evidently caught a glimpse of it, even though it was not the hand that held the gun, for she stopped and looked at us for a second, then jumped ashore and stood quiet until we passed, when she commenced stamping and blowing.

Sometimes on open water, if one is using a dim light, it is not possible to notice when it goes out, as it will on rare occasions, in spite of the utmost care. This difficulty is emphasized if the night is particularly bright, but the deer always know the difference and never fail to see the boat when this happens. Of course, when there is moonlight, they almost always see it anyway, in spite of the jack, and there have been nights when the shyness of the animals suggested to me the possibility that northern lights were bright enough to give us away. Once we were well repaid for the cold discomfort that we endured and the failure to find more than two deer, by the brilliance of the display of lights. Shortly before dawn we had pulled up on Cliff River point to have a bite to eat and wait for daylight before returning to camp. The lights were all over the sky in varied colors, white, green, blue, light lavender shading to purple, and a suggestion of red. They were most brilliant just as the first gray streaks of dawn became visible in the east, and I have a very distinct recollection of a brilliant ribbon of varied colors stretching across the sky, shot through by traveling fingers of white, and fading only as daylight advanced.

No doubt lightning itself is sometimes bright enough to give the deer a glimpse of the shadowy outline of the boat behind the jack. I know that it may be sufficiently brilliant to constitute a real difficulty to the man in the bow. It is not easy to watch carefully for objects in the light of the jack when every few seconds sheets of blinding lightning flare up to light the scene and leave one's vision temporarily impaired. I have noticed on more than one occasion that deer which we were trying to stalk in the face of such manifestations, were quite consistently jumpy and nervous, sometimes even on the alert and

Photographed by T. Gregory and C. S. De Long

THE RAISED HIND FOOT DOES NOT ADD TO THE BEAUTY OF THIS

watching the light from such a distance that only their eyes were visible.

We have found plenty of deer in the water just before a storm, when the black clouds were banking and the thunder and lightning increasing rapidly, and have succeeded in photographing some. At such times, however, they generally give every appearance of being apprehensive, indicated in their crouching, set attitudes, with the tail clamped down tightly.

Perhaps the surest way to frighten off deer is to let them hear the sound of the human voice. It is surprising how far it will carry in normal tones across an expanse of open water on a night when the air is still. I have known deer to give their signal of alarm across a lake at least five or six hundred yards wide, when I could trace the cause to nothing but the fact that they had heard us talking. Once in a while these wary creatures become disturbed and take themselves off for some reason for which we can find no explanation. I was particularly disappointed to lose a little doe in this way. She would have made a very effective picture feeding on shore near the edge of the water, framed on either side by tall bushes, the branches of which joined together overhead. She did not appear alarmed as we approached, and looked now and then at the jack or down the shore, always in a casual way. We had no difficulty at all in coming as close as we desired, but were delayed somewhat in our maneuvers by a bush which interfered slightly with as complete a view as desired. Before we could quite edge over clear of this obstruction, the doe lifted one fore foot and then the other, putting them down very carefully, one at a time, and quietly backed out of sight.

A much less orderly method of retirement was followed by a doe which stood watching us closely while we were still some distance out, and then suddenly, without cause, as far as we could tell, took fright and plunged wildly, first to the right and then back in the other direction across the stream and into the woods, where she continued thrashing around and making quite a fuss. I rather imagine that after a deer has been flashed once or twice and perhaps frightened badly by one of the shots, it is likely to be a little shy at the appearance of the jack, and it

may be that most of the nervousness exhibited by these deer without apparent cause could be explained were we able to identify better the individuals. I saw two move off in rather picturesque style one night on Howe Lake. They had been prowling around rather close to the cabin there and very likely were peculiarly alert on that account. We heard one of them some little distance off and could dimly make out the other on a narrow stretch of sand beach, offering a splendid setting, but while we were still much too far away they made good their escape, passing us in single file, the leader at a canter, the second one trotting, and sneaked off quietly without any blowing.

Photographed by T. Gregory and D. R. Dickey

TAKEN IN THE FACE OF BRILLIANT LIGHTNING

CHAPTER VI

RECOGNITION OF DANGER SIGNALS

OF MUCH more interest to me than the reaction of the deer to alarm inspired by some sight or sound or scent in connection with the boat and its occupants is the observation of how they respond to the warnings of other deer and other animals. The splash of a diving muskrat, or the whack of a beaver's tail breaking the stillness of the night, is frequently enough to bring up with a jerk the head of an indifferent deer, instantly on the alert. We had a rather unusual and picturesque experience with a doe which stood in behind some rushes on the alert and watching us, probably because a beaver had twice whacked the water with its tail before we had found her. She was right near the mouth of Cliff River, but the water was unusually high and we were able to reach her without difficulty. As we approached, she walked upstream and into the rushes, where she stopped, blew once and stamped. She turned almost immediately, and in a most vacillating way started out of the rushes, first at our right, then back in the other direction, then once more toward the right, and turned back still another time, and this time did actually come into view, slipping into the river at our left, and wading across. Here she was in range in the middle of the stream, but so deep in the water that we did not really care for a picture of her, and so moved the boat out after her and followed across the stream. She disappeared in the rushes, stopped there for a few seconds, and then took two or three very high leaps and blew again. I have never seen a deer change her mind so often in such a short space of time, and it is rather unusual to find one that will give the alarm and then continue puttering around in the neighborhood.

This incident is not particularly convincing in establishing the fact that deer will take note of the beaver's danger signal, but we did have one experience with a doe that seemed quite conclusive. The bow of our boat was resting firmly on a sand bar and we sat perfectly quiet watching her feeding in the shal-

low water. We were satisfied to remain this way because she was working in our direction, all the time in the light of the jack, and had not once looked towards us or given any indication that she was aware of our presence. We were not making a sound, and there was no breeze, and therefore no possibility that she might get our scent. It seemed a certainty that very soon she would come into range and offer us the chance for which we were so patiently waiting. Without our noticing it, a beaver had been swimming in the open water not far behind us. Suddenly it dived and gave its resounding warning on the water with its tail. At the sound, the doe, whose head at that moment was at the water's edge, jumped in a startled manner, peered carefully in every direction, still without any particular attention to the jack, hesitated a moment, and then quietly waded to shore and into the sheltering brush.

Deer seem even more sensitive to each other's actions as a general rule. Sometimes merely the sound of one of them trotting by, back in the woods, will cause a deer to jerk up its head and retire precipitately, leaving an unfinished meal at the water's edge, though otherwise apparently unmindful of its surroundings. Usually when a deer becomes nervous and wanders off, this will have a disquieting effect on other deer in the vicinity. They are likely to adopt the same method of retirement, and so when one rushes out with great flourish, another nearby may generally be counted on to follow suit. It does not do to hesitate too long or be too greedy in the quest for pictures. We lost an opportunity that way because the unexpected appearance of the head and ears of a second deer induced us to wait and forego a good chance at one deer in the hope of taking two together, but the second one saw us almost immediately and jumped out, followed by the other one, which left us empty-handed. Stamping will generally be recognized as a signal not to be ignored, and those sly deer that stand watching the light, giving us no opportunity to see them or hear them, and then taking advantage of what they see after the light has passed, are a source of some trouble, for they generally take with them any other deer that may be lurking unsuspectingly within our range. Sometimes a more phlegmatic individual may stand fast in the

Photographed by T. Gregory and W. Hodges

STOPPED ONCE MORE TO COCK ONE EAR

face of all definite warnings. We encountered one of this breed on Second Pine Lake. We had passed her before noticing her presence and, as we turned to recover, saw the eyes of another in front of the boat. This latter was out of reach behind considerable deadwood, and during the interval of waiting for a favorable move, a third deer made known its presence close by. We had no more than decided to attempt a shot at this latest arrival, when it became frightened, as did also the one behind the deadwood, and both of them crashed off, blowing. The first one stood still, on the alert it is true, and listened, but nevertheless sufficiently self-controlled to give us a fair picture.

We had an amusing illustration of the notice taken by one deer of the blowing of another, after one of those distressing occasions when the gun misses fire. We had tried to flash a little buck and after the failure he moved off only a short distance, and when we came back from putting a new shell in the gun, he was still there, stamping and blowing at a great rate. We let him alone and turned to another which was in the water nearby, also a spike-horn buck. The first one kept up a continuous blowing, but did not move. Every time he blew, the second one turned to look at him and then swung his gaze back to the jack, apparently nervous, but not connecting the jack with the first buck's alarm. He showed no hesitation, however, in retiring when the flash went off.

It is much more usual, under similar circumstances, to be treated to just a glimpse of a streak of white in the darkness, as the spray scatters in the animal's flight in response to the alarm. Sometimes we become unduly apprehensive ourselves as to the effect that may result in the general neighborhood from the blowing of a deer that is really far enough away so that it will be ignored by others. One of the most pleasant surprises that was ever accorded us in such circumstances was the sight of a great buck with a beautiful spread of antlers in which he carried a branch, evidently picked up on his way through the brush. Unfortunately, he was quartering away from us as we approached. I thought I could make him turn around by scratching on the side of the turntable. This is frequently an effective measure, but it did not work with this old buck, and instead of

turning around, he took one or two great leaps straight ahead, and stopped once more to cock one ear, on the alert for the first sign of danger. We had the good fortune to catch up with him again, but this time, taking no more chances, flashed him as he stood.

We had a somewhat similar encounter with another splendid old buck, a fine large-bodied animal, with as beautiful a head as I have ever seen in the light of the jack. The only difference was that this time I did not even dare to attempt any tricks to make him look around. He was too nearly ready to go as it was. We found him wading upstream, feeding on the move, with his head under water a great part of the time, conveying the impression very distinctly that he was about through for the evening. No alternative method of procedure suggested itself other than to set out in pursuit, post-haste, calling for a rate of speed faster than ordinarily advisable. The result was nearly disastrous for when the buck stopped suddenly, the boat drifted to within about fifteen feet of him before losing its momentum. His head came up, but he continued to look away, watching the shadows. I should have waited for him to turn, but that he suddenly crouched and set every muscle for his leap. Here I thought we had surely lost him, but his curiosity got the better of him and he straightened up again for a last look, and I dared not wait longer. It is always easy after the event to conjecture as to what might have been. A symmetrical well pointed head does not appear in the light of the jack with sufficient regularity to temper the disappointment of a lost opportunity or unsatisfactory pose. Perhaps I should have reasoned that the chances were about equal that this fine old buck would have finally turned for a look at us, or changed his course in such a way that I might have procured a picture of real merit, or it may be that I should have chanced an effort to attract his attention rather than compromise for the back view, which finally resulted.

One of the most fascinating features of deer shining is its uncertainty and the occurrence of those unexpected incidents that turn defeat at the last moment into victory. We had just come from one such experience before finding the buck. A doe had stood in the shallow water by the rocky shore of Cliff River

Photographed by T. Gregory and W. Hodges

HE STRAIGHTENED UP AGAIN

Point looking back at us over her shoulder. When she stepped up on the rocks, we gave her up momentarily until we discovered that she was not alarmed, but was working back in the direction from which we had come, quite near the water. It seemed worth while to turn the boat and follow to await eventualities. In a moment the doe came to the water again, waded along a short distance, then stepped again on to the rocks at the very water's edge, and put down her head to drink. We happened to be in a good strategic position at that moment, and it was no trick at all to take a picture which is perhaps still the best in the collection.

This indifference of the deer to the jacklight is often encountered. It has generally been my practice in such circumstances to call on all my reserve of patience, and wait and watch until the deer itself maneuvers into a suitable position. Of course, the logic of this is emphasized if there appears to be a likelihood that two deer near us may come close enough together to be so photographed. We spent many minutes thus watching a small buck in open water, hoping that another deer which we could hear in some nearby rushes would work in our direction. But this latter must have glimpsed us before the rays of the ranging jack encompassed it, for it stopped feeding and began stamping. The little buck was so busy that he took no notice of this manifestation, and we consulted in a whisper and finally decided to wait no longer. So we scratched on the turntable and clucked and chirped and whistled and whistled again, and finally the little buck lifted his head slightly in a casual manner, and we took his picture. At the flash the stamping deer stamped much more insistently and also blew considerably, but did not run, and the buck took his time and walked out very slowly. I have known this expedient of whistling, or scratching on the turntable, to have no effect that could be observed, neither to attract the deer, nor to frighten it.

I have in mind particularly one occasion when we found five deer in Cliff River Bay, and discovered two of them moving around rapidly, one apparently chasing the other. The leader did not pay very much attention to its associate, but waded around at random for a time and then started to swim back to

Cliff River, whereat the second one went out in hot pursuit, bleating as it commenced its swimming. We had heard this one leaping and rushing through the water as we came into the bay, and could just see by the light of the jack that it was much smaller than the other, which led us to hope that they might be doe and fawn. In this we were disappointed, as they proved to be a fork-horn buck in the lead, with a little spike-horn following. When they had crossed the mouth of the river, the fork-horn stopped and the little spike-horn began playing again, jumping around, running away for a short distance, only to turn and come back at another angle, and generally disporting himself with the greatest abandon. At last they turned back and waded out once more in our direction. The fork-horn came on so fast that I finally scratched on the side of the turntable to stop him, but to no avail. He came right ahead, though the little spike had stopped, and I had to shoot the flash in self defense. Neither buck appeared to be much alarmed, and as we moved away into the shelter of the protecting point we could still hear them splashing about, the little one bleating now and then.

I have had a number of interesting and amusing encounters with widely swimming deer. It is not very easy to photograph them. As a rule they get away altogether, or continue to move too rapidly for the flash. With one such we might have succeeded but for the fact that we ran on a submerged branch. She cruised about the boat until her course brought her up some twenty feet or so from the stern, where I could hear her labored breathing. It gave her a start to find us there, and after standing still for some seconds, she plunged off toward shore with a snort, only to stop when near the bushes. On another occasion we lost two, one right after the other. The first one was feeding out in the middle of the bay, swimming rapidly back and forth, finally coming right toward the boat. I stopped it with a scratch on the turntable, but it only looked up for a second, then turned around, lunged out of the water and swam away. We never did get near the other one, and it only interested us because it was giving a sort of squeaky grunt now and then as it swam. There must be something peculiarly succulent about lily pads that grow sufficiently far from shore so that they can only be reached by a

Photographed by T. Gregory and D. R. Dickey

ALERT TO EVERY LURKING DANGER

deer if it cares to swim for them. It certainly does not look like a very restful and easy method, this business of swimming rapidly here and there, nipping off pads more or less on the fly. We were surprised by one of these swimmers in the middle of a rest on Cliff River Point. This one we finally succeeded in flashing. We heard her approaching the water on our side of the point, and climbed quietly into the boat and pushed off to meet her. She came right out into deep water, racing around and clipping the lily pads, once turning within two or three feet of the boat, paying no heed and swimming off again across the bay. Here we caught up with her at last in shallow water. It will always be a debatable question with me, and I do not see how it is possible to decide it, whether it is better to watch for an opportunity when the deer are unconscious of the light, or to try by some subtle means to make them take notice. Sometimes one method proves better, sometimes the other. Sometimes there is no choice because while a deer is close enough to watch, it is still too far for a shot, or inaccessible. On such occasion a long patient wait frequently is fruitless and the deer moves off, putting us to the necessity of pursuing or giving up. And when the move of one brings two together, it is discouraging to have the operations of the boat, which we must undertake, arouse their interest too soon and send them out in great long leaps.

I never feel disappointed, however, when I am afforded some little unusual insight into the ways of the beasts, as I was in watching a doe utterly oblivious to our presence. She looked only once at the jack, and that time while we were still far away, then stepped into the brush and out again at once beside a large dead tree, extending from shore out into the water. As it lay there, it was about as high as her chest. We were perhaps fifteen or twenty feet out, and it was interesting to see her when she finally made up her mind to move, stretch her neck over the tree, lean close to it, gather her hind feet under her, lift up her fore feet, and only then push off and slide gracefully over. There she was inaccessible owing to deadwood, but we continued watching for some time. Concluding at length that there was nothing to be gained by waiting longer, we moved on towards another deer, which we heard in the water further down the shore, trying

to give the first one the slip, when she had her head and forequarters hidden in the bushes, but no sooner had the light swung away than she crashed off, blowing. I never tire of watching them as they browse on the bushes or feed in the shallow water, turning in and out, sometimes climbing on shore, moving along a few feet and returning to the water. They seem to find considerable attraction pretty much in one place and, after exhausting its possibilities, frequently move off quite a distance before arresting their progress at some other choice locality. The vegetation may appear the same, but there are evidently distinct differences, well recognized by the deer.

As a rule, the best chances occur when it is possible to hold the boat in the line of march of an oncoming deer and leave it to the animal to come into range. In such circumstances the animal will generally notice the light when it gets close, and the only difficulty is that before we have the opportunity to fire the flash it may make matters difficult by grotesque and awkward efforts to pierce the protecting glare of the jack. A doe treated us this way at dawn, some distance up Cliff River. It was already too light to make further efforts on the lake itself worth while, but the trees gave us considerable protection, coming down close to the river bank, and the dark reaches of the stream with the overhanging brush and the tall trees with their branches reaching close together, yielding us only a glimpse or so of open sky, made an impressive picture. This doe stood in shallow water by a little beach of sand, to watch us come, but shifted her head at the last moment into a very awkward position just too soon for our purposes and not soon enough for us to detect the result in time to wait a more favorable moment.

Once in a while a deer may appear so picturesque as it stands in the shadows, looking about uncertainly, starting at the splash of a muskrat or beaver and cocking its ears back and forth, one after the other, that I like to take it that way, even though it be looking away from the jack, the very embodiment of keenness, alert to every lurking danger. I tried with a scratch on the turntable and with whistling more than once to turn the head of a doe which had come to the water while we waited. She turned away as she reached the beach, without looking at us, and

Photographed by T. Gregory and C. H. Hodges, Jr.

SHE STOPPED TO LOOK AROUND

walked rapidly for a few steps, stopping then quite unexpectedly, looking off into the distance. Her route had brought her into such a position that owing to the wind we could only approach by sliding up behind her close to shore. Then she turned without apparent reason and walked along the side of the boat, not over six feet away. I thought the possibility of a picture lost and amused myself by letting her pass out of the light of the jack, to watch her stop and peer into the boat in a most ludicrous way before she leaped in great haste for the shelter of the woods.

It does not always follow that because a deer's attention is attracted from the boat it will turn to look in the proper direction. Sometimes its head will come up and it will not identify accurately the direction of the sound that has disturbed it, but look about uncertainly for a moment. I have had them look up quickly, and then whirl away before I could shoot the flash, but with sufficient uncertainty so that it was possible to overtake them in time for a shot. This, however, has not happened very often. I think perhaps the most timely scratching of the turntable in which I have indulged was to attract the attention of a doe which we had found feeding deep in the rushes. She slipped away very quietly and swam clear across Cedar Bay, but there we heard her again and found her standing on the rocks at the water's edge. It was exasperating to watch her, now alert, now feeding quietly in attitudes that would have accorded us such splendid shots. We dared not hurry too much, yet feared that she might depart at any moment, and that is just what did almost happen. While we were still too far away, she became uneasy for some unknown reason, and turned as though to move off up the gradual slope of the rocks. I scratched quickly on the turntable and she stopped to look around with one fore foot raised, then crouched as though to jump just before I fired.

CHAPTER VII

RANDOM EXPERIENCES

IN THE early days of our experiences the deer were not so plentiful on the particular waters where we followed them as they have been of late years, and many were the nights when we worked hard, hour after hour, with not a sign of a deer to inspire our efforts or help keep us awake. Such a night as that stands out in my memory of the early years, when we paddled three miles to the end of Pine Lake and half-way back before hearing any game. "Then came a splashing, two eyes shining a little way out from shore and at last the sight of a buck wading toward shore. As he stepped on dry land, he stopped broadside and watched our jacklight. It seemed as if we must get a chance, but there were a lot of stumps between our boat and the shore, and before we were within range the deer started to move off. I scratched on the side of the turntable to hold his attention, but this time it did not work, and he merely bounded off a little way and then into the water again, where he was out of our range owing to the deadwood. When we had moved off some distance, I turned the light back, and we could still see the two eyes shining 'way back in a little arm of the lake." After all, such experiences add to the fascination of the sport, for it would soon pall if it were possible every time to be rewarded with numerous easy chances. Sometimes a deer will be startled into immediate frightened retreat, without so much as a glimpse at the light, by such an effort to attract its attention. It is always a gamble, and I guess there is no safe rule to follow.

There is one sort of situation in which we are never troubled with the necessity of deciding whether or not to attempt to attract the deer's attention. Such procedure could serve no useful purpose in those numerous exigencies when we find it necessary to wait for a deer to work its way through the brush to the water's edge. It not infrequently happens, when we are prowling silently around the shore, alert for sight or sound to indicate positively the presence of deer, that the rustling of the leaves

Photographed by T. Gregory and C. H. Hodges, Jr.

LOOKED INTENTLY AT THE JACK

or the cracking of a twig may arrest our progress. We must respect this notice that there may be game at hand, and turn the boat to let the rays of the jack cover the avenue of approach, and there wait quietly and patiently for what may come. I am not yet able to distinguish certainly between the tread of a porcupine or the scurrying of a red squirrel and the sounds sometimes made by a deer feeding undisturbed near shore. Many times disappointment has followed my attention to such signs, sometimes nothing at all coming into view, sometimes a porcupine, sometimes the animal, whatever it might be, working off inland instead of toward the water. No phase of deer shining is more tiring than to wait, minute after minute, following by ear the slow and halting progress of a deer through the brush when it is occupied there and not intent upon reaching the water. Sometimes such an animal seems to be possessed of a malicious design to put our patience to the test. It may crack a twig only once every few minutes. It may move so silently and slowly as to make it difficult for us to hear it at all, and in the end may never show itself. I have waited sometimes in vain for fifteen minutes, resolved to move on every little while, each time detained by some slight sign of activity on the part of the deer. It is not difficult to become fatigued and almost overpowered with sleep in such circumstances. Very little continued activity and certainty that we are dealing with deer is required to change the perspective altogether. It may still be tiring to wait for a deer which we actually know is present, either by having had a glimpse of it or by being able to watch it as it feeds in the brush or by hearing it splash in some inland bog, with that step which is always unmistakable, but it is easy then to be patient. Perseverance is occasionally rewarded on those occasions of long waiting, but as often as not our patience goes unrewarded unless the deer to which we are listening so intently comes steadily and directly to the water. The difference in their intention and disposition is frequently not difficult to detect. I seldom forego even a remote chance, however, unless there be other deer more available close at hand.

One very good picture fell to our lot after the exercise of no inconsiderable amount of patience. It came on one of those cold

damp nights, when plenty of mist drifts about on the water. We had heard a number of deer but had been unable to find any in the water in spite of serious efforts for an hour or so. At length, drifting along close to shore, we heard the distant sound of breaking deadwood. Bringing the boat to face toward the woods, we lay quietly for some moments listening to the progress of the deer as he slowly worked his way toward the water. At length he came into view, a young buck with a good head of well proportioned antlers, and stepped down to drink, but the moment his muzzle touched the water, he jerked up his head and looked intently at the jack. In that position we took him. I suppose as his head reached the water some unusual reflection caught his eye, because there was no sound from the boat and no drift of air that could have startled him.

Picture or no picture, I always find it interesting to watch the deer, even though my view be limited to an occasional gleam of the eyes or a shadowy glimpse as they move about well hidden in the brush. Annoying as these experiences are when they do not result ultimately in the opportunity to fire the flash, they are not as exasperating as those of frequent occurrence at the head of our favorite Mountain Lake for which responsibility may be charged to the changing depth of the waters over shifting under-water sand bars. I suppose such a situation is inevitable where a stream empties into a lake, and it may be overcome with some measure of success during any given dark of the moon by a careful investigation of the channels during daylight hours. It is not easy to carry these in mind at night and identify them readily, but the effort helps considerably. We ran so fast on such a bar as we came down stream one night that, in spite of our most earnest efforts, we were unable to dislodge the boat until we stepped out into the water and lifted it off and set it afloat once more. This happened at a most inopportune time, for we sighted a large buck well out in the water where he would have been easily accessible had our approach been from the other direction. He watched the whole proceeding in a detached sort of manner for several minutes, and then stalked majestically up the shore and out of sight before we were free. To make matters worse, it was only a few minutes later that we grounded twice in an

effort to reach another buck. It may very well be that the breaking down of an old beaver dam was largely responsible for the exceptionally shallow water that caused us so much grief.

I am afraid I can not claim to be as exacting as I might in choosing the subject; sometimes circumstances inspire a shot that really should be allowed to pass. I was guilty of such a performance on one very memorable night in September. We had had an unusual number of very nice chances and when we flashed a doe at about three thirty in the morning and noticed that another deer not far off remained in the water, we backed out into the bay to reload and came in again with as little delay as possible. The deer was a buck, but he moved away from the jack at our approach, and when he stopped to feed again we made a detour and ran up toward him until the boat stuck fast on a sand bar. There he stood broadside, gazing at us, illuminated by the light of the jack against the dark background of the night. I knew he was too far away, but it was close to four o'clock by that time and sufficiently light so that the bushes were beginning to look a little gray, and it was a certainty that this would be the last possible chance that night. So I gave way and fired the flash, and after all the picture is far from a total loss, though the little buck does, of course, look somewhat blurred.

That was really quite a remarkable night. We counted twenty-one deer about us, eleven seen under the jack and eight photographed in seven shots. That is as many shots as I have ever had in one night. In one of our trips into the bay, we saw two muskrats swimming directly towards each other in the light of the jack. As neither would give way, they met head on, seemed to rise in the water, grappled for a second, and then both dived. Once as we were listening intently and while the air was perfectly still, a great tree cracked, and cracked again, and then fell with a roar. I have frequently heard this in the dead silence of a calm night, and I never thus note the passing of some giant of the forest, destroyed by age and decay, without a real sense of regret. The owls were out in great numbers that night, hooting all night long. It was the last night of the moon too, nothing left but the merest wisp, which shed hardly more light than a big star, and glowed very dully in the sky. When we reached camp

at half-past four, we found a big porcupine sitting at our fireplace, almost in the few remaining live coals, with its front paws stretched across to the back log. We chased it up a big tree that stood near the fire, and there it stayed nearly twenty hours. For an hour or so we sat, refreshed by tea and crackers, watching a colorful sunrise. As the sun itself appeared, at about five o'clock, the clouds that were beginning to gather added greatly to the beauty of the scene. The colors were reflected perfectly in the still water of the lake, but when I finally rolled up in my blankets it was broad daylight.

Our camp was on a rocky point at the narrows of Mountain Lake, where we placed it for many years during deer-shining operations. I marvel now when I think back to the days before we were sufficiently intelligent to camp close to the shining grounds. What a useless expenditure of energy and effort it was to leave our headquarters on Lake Superior at dusk, after a hasty supper, packing on our backs all of our paraphernalia, to walk half a mile to Pine Lake, row across another half-mile or so, walk uphill a mile and a half to Mountain Lake, and pull the length of that picturesque body of water, some three miles, frequently in the teeth of a stiff breeze, shine diligently all night, and return over the same course to our headquarters by daylight the next morning. I shall never forget the reserve of will power upon which we had to call in dragging our weary way over the trail from Mountain Lake in the face of the sweltering rays of the early morning sun, for it was frequently sweltering in those hot, muggy days of mid-summer.

Those one night trips, however, were on occasion very much worth while. It was on one of them that we procured the only picture that we have of a doe and fawn together. The doe stood in the open water in front of a patch of rushes near Cliff River. We heard her at a distance and saw her eyes in time to direct our course accurately. Within a few seconds after they had first shone out to give notice of the presence of their owner, another pair became visible low down near the water, emerging from the rushes some distance away toward shore and back of the doe. I knew these last could belong only to a fawn, and felt great anxiety lest boat and fawn might not convene with the

Photographed by T. Gregory and C. H. Hodges, Jr.

IT TURNED ITS HEAD

doe at just the right moment. By this time she had lifted her head once or twice to look at the light, and I was fearful that she might move off too soon. She continued feeding, however, on water lily roots and did not raise her head for that characteristic last long look until the fawn had reached her side after an uninterrupted trip from the rushes. The little fellow walked right up beside the doe, stood between her and the boat and apparently looked up into her face. We were still out of range and with the doe gazing steadily at the jack, and the fawn, of course, possessed of that exuberance of spirit natural to fawns, I expected them both to go at any minute, but they stood quietly until we reached what seemed to me the farthest limit of focus and then I pulled the trigger. At the flash they turned and walked slowly off, the doe leading, making one or two stops before disappearing from view. We found upon development of the plate that the doe held in her mouth lily pad roots which hung down on either side, and I have no doubt that the little fawn was nibbling at these roots when it appeared by the light of the jack to be looking at the doe. Unfortunately, even as I pulled the trigger, it turned its head towards its mother, apparently on the verge of moving off.

I photographed a doe once after she had skipped off with her fawn and when she stopped in the shelter of the rushes on shore for a moment, but I did it without enthusiasm. As a matter of fact I did not expect to have the opportunity and did not much care once the fawn was out of sight and out of reach. When the doe made her first dash, I supposed, of course, that she would keep on going.

Not many years ago, in a September dark of the moon, on the twelfth of the month, we met a doe with twin fawns. It was a cool night too, with the thermometer standing at about forty-two degrees, but the weather had been sufficiently cold during the day and the sky sufficiently overcast so that we did not have to contend with mist. As we lay watching and listening near a spot on the shore where a small stream empties out of the lake, we heard the sound of deer splashing in the water and turning in that direction we found a doe with her two fawns coming up the outlet toward the lake. There was no drift of air to favor them,

and we made no sound; but suddenly without warning, just as we began to hope for success, the doe turned and raced back in the direction from which she had come. She was followed by one of the fawns, while the other ran along the sand beach in front of us for about thirty yards and then stopped short, trembling, gazing back into the woods. We chanced a picture of it in that position, but it was unsatisfactory as the little animal's head was jerking around in constant motion.

We met with a similar disappointment on another cold September night during which, this time, there was some mist and a bit of breeze which, however, did not affect the prospects by Cliff River. Close to one of its banks we picked up a pair of eyes moving up-stream. Shortly they disappeared above a beaver dam and we feared that perhaps our only chance was gone. It required no little patience to sit quietly without encouragement for perhaps half an hour. True, we were somewhat stimulated and kept on edge by hearing distinctly during this interval the splashing of a deer further up stream, presumably the same animal that we had followed. At length the sounds indicated an approach and soon we saw through a break in the bushes at our left a pair of eyes moving in our direction, followed closely by another pair, and still a third, in single file, those of the last two animals being close to the water and affording us that satisfactory thrill that comes with the certainty that we are about to deal with a doe and twin fawns. At this point on the river there was a deadwater behind a narrow strip of rushes parallel to the course of the main channel. Lying there in a very advantageous position, we hoped, of course, that the deer might come immediately into the river in full view, but one glimpse was all we had, at the moment, of the advancing eyes before they crossed through the rushes into the deadwater. They did not stop there long, however, but maintained a steady progress in the direction of the mouth of the river, with comparatively few halts. We followed them, backed the boat when they moved forward and held it still when they stopped.

At last we came in this way to a place where the river widens at its mouth and there we waited, knowing that our quarry must now come into the open or turn back. Our wait was only

momentary. Shortly, the doe stepped out of the rushes and stopped in the open river, thirty or forty feet from the boat, leaving the fawns out of sight in the rushes. After one look at us, she jumped suddenly towards us into good range, walked a few steps, looking intently at the light, jumped again toward the jack, swerved off past the stern of the boat and stopped some distance behind us and off to one side. Only one of the little fawns followed, the other remaining hidden. All this time, of course, the light was kept trained on the doe, so she had no possible chance of seeing the boat or of knowing of the presence of anything there except the light itself. No breeze blew to carry our scent. Then without warning, the doe plunged through the water parallel to the length of the boat until opposite its center, turned sharply and came straight for us. She was not followed in this mad race by the fawns. The water was shallow and the direction taken by the animal was such that we thought she would strike where no harm could be done and so continued to hold the light trained on her and made no effort to check her progress. She struck the boat near the end of one of her great jumps, left some hairs on the gunwale, floundered onto the middle seat, marking it with her hoof, scrambled out again, rushed past the turntable, knocking the lamp loose on the way, and went off up stream in great leaps that looked six or eight feet high. The little fawn which had remained in the rushes never did reappear, but as far as we could tell, followed the doe on up stream. The other one we heard trudging along the shore and followed it by its bleatings, but it did not come into the open, and thus all chance of a picture vanished. One interesting commentary on the whole procedure was the fact that during it all the doe maintained a stoical silence. Even on her last rush she did not blow at all. We pulled up on Cliff River Point, cooked coffee and food, and dozed there by the fire until about four o'clock. It was then beginning to get light, and as we started preparations for our return to headquarters we heard a small pack of wolves nearby. At three distinct times they howled and whined and yelped, and as we started down the lake they gave us a long farewell cry.

It was some years after before I again heard wolves from Cliff

River Point. They were quite close, seemingly right on the ridge between Mountain and Cliff Lakes. The first cry came early in the evening, so far away as to be unrecognizable, then one close enough to be unmistakable, and others working around nearer, until at length such a burst of sound as I can not describe. Three distinct old ones, at least, were there. They howled and howled, their howls having a hollow note and a power unbelievable, rising to great strength, dying a little, then increasing many fold, without cessation, two booming voices and one shriller and higher, separately and together, echoing again and again way down the lake on the still air. We saw deer in the water while this was going on, but they seemed to feel quite secure.

That little point is a very favorite spot with me. I have sat so many times in the little clearing, discussing recent exploits or debating what course to pursue next. I amused myself once by taking notes right there in the light of the fire between trips into Cliff River Bay, from which I quote a few passages.

"11:23 P.M. Continued cloudy until after dark and then turned out brilliantly clear, with fair northern lights. Saw a big doe about 2:20 near Mink Run and another deer at 7:45 on the north shore of the big bay. Strong west wind still blowing, but going down some. Left camp, temperature 66 at 10:23. Shined bay east of this point and down past Cliff River, without seeing anything and then heard one in the river. Turned back close to the bushes and nearly ran down a beaver on the way. Saw the deer across the river and heard it get into the bushes on the north bank. Heard a twig crack behind us but went on north. Wind gave us away and deer south of river blew and stamped. Nothing more until nearly to the end of this point, with no certainty of seeing anything, and shutters closed. Came on a doe standing up the rocks a little from the shore. Saw her outline first and then eyes. She climbed higher and walked back along the point. Stopped twice, the last time too far inland, so we came on. She must have seen us as she blew once. Very likely same one that has been thrashing around here the last few minutes.

"12:25. In again to Cliff River Bay at 11:45. Started straight in, but ran fast aground. Just at this moment a doe came in

a few rods northeast of the river and stood watching our efforts to get off for several minutes. Just as we made it, she stepped into the bushes again and stood watching from there for five minutes. Her eyes were plainly visible from the time she got into the water. Finally she walked off and then suddenly blew several times, though I am sure she got no scent. Saw the eyes of one on this point as we came back, and heard one blow and stamp. Both near together. Wind going down.

"1:20. Left here 12:45. Heard nothing. Headed in the bay north. Heard one in bushes. She was puffing a bit and finally sloshed into the water a few feet inland and stood still. I missed most of signals,—so busy looking for deer. At last saw her outline, but no shine of eyes. Moved into range and flashed her at once. She jumped and then stood still and was still there, as far as we knew, when we rounded the point. Bay very still. Lights brightening again."

Among the associations that for me have come to be closely connected with the taking of deer pictures at night is that of the sight and sound of numerous beavers pursuing their orderly existence or swimming at random to guard against surprise. I have often turned in their direction when hearing them on shore, but the difficulty of approaching one of these little beasts is infinitely greater than that of moving up to a deer. They seem more alive to sources of danger, keener and sharper witted. Once or twice we had some success at the foot of a rocky slope where numbers of them were accustomed to congregate on a midsummer night and where we heard them gnawing very frequently. I have been startled more than once by the dive of one that had approached close to the boat without discovery, and many times have felt the effects of the shower of spray sent up by the whack of a sturdy tail on the surface of the lake. One swam close by while we were pursuing deer unsuccessfully one night, and made a sound like the buzzing of some great bee, then heaved a long sigh and went down with a whack. That same night we came in nice range of another one sitting facing us in the middle of a runway and gnawing busily, but two large logs on shore blocked a part of the view, so we had to let the beaver slide down and dive past us without firing the flash. One fairly good pic-

ture resulted rather by chance. The beaver must have been extraordinarily engrossed in its meal, although the reed upon which it was feeding did not look to be a special delicacy. It lay on the water facing the cameras and held its food in both fore feet in the act of nibbling when the flash was fired.

I think it was on the night when we first put a light in the bow of our boat, but before trying our cameras in connection with it, that we came on a beaver tucked away below a fallen tree that had caught a few feet above the water, and watched it as it stripped the bark from the branch held in its fore feet. It turned the branch as it cleaned the section between its feet, and then slid it along to a fresh part. While we watched, the boat drifted closer and closer until finally the bow rubbed against the fallen tree. Instantly the beaver disappeared in a swirl of water. Not far from there, we came upon another sitting on shore in an upright position, braced by its broad, flat tail, diligently combing and smoothing its fur, a seeming waste of time in view of how soon and unceremoniously it was to plunge again into the lake. It did not depart, however, until we had had a splendid view from a distance of not over six feet and until it had gazed steadfastly at the light long enough to convince itself that this was an object of suspicion and not to be trifled with. One other member of this interesting colony favored us with a fleeting glimpse before taking a long dive from the shore. The speed with which it dived under water and passed under the bow of the boat was a revelation. We were guided to its whereabouts by the sound of its active cutting upon a small sapling of some sort. Although our boat was almost touching the beach within a few feet of the scene of operations, we were not fortunate enough to see this animal at its work on account of some underbrush, which entirely hid it from view. It was not many minutes from the time of our approach before the sapling fell and the workman appeared upon the beach directly in front of us. For a moment the beaver sat upright, seemingly terrified and uncertain as to the best avenue of escape, then took to the water in desperate haste, braving all dangers and leaving a wake that rocked the boat.

Once in a while I have been fortunate enough to watch beavers

Photographed by T. Gregory and D. R. Dickey

AFTER PATIENT WAITING

at close range in broad daylight, but in each case they were conscious of my presence. One night we were overtaken by dawn while shining, and, on passing near a beaver house, saw a half-grown beaver swim toward the entrance and dive silently. Then I heard another one gnawing, and soon discovered it sitting on the edge of a canal eating something in its paws. I tried to take its picture in the poor light of the early morning, but the click of the shutter bothered it somewhat and it dived out of sight. Before long another of the same size appeared, and soon another considerably larger, together with a baby that looked much like a muskrat, only much more woolly. Apparently, they could detect motion in our direction for they lay still on the water whenever I shifted my position, gazing intently at us. We were not over ten feet from them, if that far. They must have been near-sighted or unable to see well in the daylight, for they did not take alarm at our presence, but for the most part went about their affairs as though we were not there. The older ones seemed to have considerable difficulty in keeping the little one quiet when they thought it wise to watch us, though they did succeed once or twice in making it lie still on the water by swimming close to it and seemingly giving it some rather definite silent commands. While we were watching, a large one came into sight, but it did not stay out long. Another came down a steep runway across the bay, dragging a log about ten feet long and two or three inches in diameter, and making a great racket. We had a splendid view of it, but when we tried to get near, as it was swimming across the bay with its log, it became alarmed, let go its burden, swam around to reconnoiter, and finally dived once or twice, silently, at which point we gave it up as hopeless. The gnats were so bad that they finally drove us away. I noted at the time that "It was certainly a great sight, all those beavers swimming in their canals, eating their breakfasts, diving to enter the house, and conversing therein in loud tones, and yet apparently even at that close range unable to satisfy themselves that we were sufficiently unusual to warrant their becoming unduly alarmed."

I am reminded of another occasion when we sat quietly with the nose of our canoe on a sand spit, and watched several beavers

swimming close to us, diving on occasion, coming up again to renew their scrutiny, sticking their noses in the air and sniffing industriously to see if they could not possibly catch a drift that would tell them what we were. This experience recalls another, this time with a muskrat, for which we have never been able to give ourselves a satisfactory explanation. We were camped upon the banks of a stream where others had been before us, during a week when the weather was cold and rainy. One morning this animal, a fairly good-sized individual, appeared near our provision tent, fully one hundred feet from the water. It seemed very tame and docile except when we teased it while it was eating some bacon rind. Even then it showed no sign of fear, but on the contrary, a readiness to fight for its meal. When it had finished eating, we rubbed its back with a stick and this seemed to have a very soothing effect, for it closed its eyes at intervals and appeared almost ready to go to sleep. On that same early morning, when we had watched the beavers by their house, we tried to approach a deer, but before we were close enough, she became a little worried at the sight of something unfamiliar on the lake, stepped out of the water, shook herself, and walked out of sight. We came in close, trying to see her in the bushes, but this was too much, and she took fright and crashed off with angry snorts. Another deer sighted at a distance in the bushes at the water's edge, soon came to the water, sinking to her shoulders in the soft muddy bottom. She too became alarmed before we came close enough, and floundered desperately trying to get out. Finally gaining solid footing, after slipping badly upon the bank in her frantic scrambles, she disappeared quietly from view.

Not a small part of the pleasure of these camps of ours in search of flashlights of deer has always been realized in watching in daylight hours such wild life as came into view. The sight of a deer wading, its coat shining in the sunlight, a lazy muskrat swimming by, or a lively little mink running along the rocks at the edge of the water, interested in us, but unafraid, always affords me a great sense of satisfaction. I like to think of the woods as peopled with all sorts of animals, undisturbed, meeting their own problems, fighting their own battles, and living along from day to day as best they know how.

Three deer caught my eye one morning, one rather dignified, the other two quite frisky, running and shaking their heads, bucking and jumping, and several times standing straight up on their hind legs, with ears laid flat, and striking three or four times at each other with their fore feet. One jumped right over one of the others during their play. I must admit that it is sometimes aggravating to see a doe and fawn feeding quietly at some spot that would be most accessible and ideally situated for a picture at night. At the mouth of Cliff River we found a doe on one of our early morning trips up to her neck among the lily pads. She would take a pad in her mouth and then rise with it, stretching her neck as far as possible, and in that way pull it up. But busy as she was, we had no chance to come close enough for a picture.

Once, at about nine o'clock in the morning, we heard the flash from our trap camera, and saw the cloud of smoke drift into view above the tops of the trees. We had set on a deer run, but development proved that a very large black bear had walked in and crossed the trip wire, so close to the camera that only a part of its head and neck showed. Another bear, perhaps tempted by the aroma from our cook fire, came very close to camp one morning, but did not tarry. Although there are sometimes numerous black bears in the Upper Peninsula, judged by the tracks and the records of trappers, it has seldom been my good fortune to see them or have them as close at hand as they were at the camp thus visited. The season had been very hot and broad expanses of blueberry bushes instead of bearing luscious fruit, were burned and dried up. Perhaps this made it difficult for the bears to find sufficient suitable food on the ridges and made them seek relief closer to civilization.

CHAPTER VIII

A SHORT SESSION WITH MOOSE

PHOTOGRAPHING moose is quite a different undertaking in many ways from the pursuit of deer pictures. I have had only one opportunity to indulge in this sport, on which occasion our destination was McKiel Lake, in York County, New Brunswick. We started into the woods from Fredericton and, after spending one night at a natural lick in the heart of the woods, pushed on across the Southwest Miramichi River and received our first intimation of the proximity of our camp from the distant cry of a loon. The lake itself is about three miles long and in the neighborhood of a mile in width at the south end. Its general sweep from end to end is southeast to northwest, and the lower end of the lake for perhaps more than half its length is narrow, varying from a few rods to several hundred yards in width.

After a very early supper on that first day and a short trip along the shore to reconnoiter for game trails, we were encouraged by the sight of a three- or four-year-old bull moose coming into the water and remaining there as long as it was light enough for us to see. Even before we could make out his antlers, we knew him for a bull by the way he scattered the water every time he lifted his head up. When darkness came on, it was too cold for shining and we reluctantly abandoned any thought of going on the lake. We had only two weeks altogether at McKiel and out of fourteen nights were able to attempt flashlights half the time, being deprived of the chance on the other seven nights by cold and rain and storm. In fact this happened on four out of the last five nights in camp. There was seldom a time during all of our stay when there were no moose in sight on the shore of the lake either day or night, and perhaps we had our fair share of good fortune in obtaining some fifteen pictures, although it would seem that the freedom with which the animals appeared in the daylight hours militated against our chance of finding them out after dark. Although the weather continued cold for another night or so, we found very little mist on the water when we made

our first attempt. Out near the middle of the bay at the north end of the lake on the shore of which our cabin was located, we let the canoe drift, and, listening, could hear distinctly a moose some distance down the lake.

Proceeding toward the sound, we had not moved far past the end of the point that marked the beginning of the narrow part of the lake when there shot across the sky the most brilliant meteor I have ever seen. The trail of fire must have lasted about three minutes, brilliantly for thirty-three seconds by actual count. The moose, however, had gone, but we heard the rush of water off the heads of two as they raised them from feeding. They were across the lake from us, and while we lay still, listening for some time, on our side we heard what we took for the whine of a calf. As we were about to cross after the two in the water, the sound of the grunt of a bull on shore came to our ears. We debated for a moment whether to wait for him or proceed, and almost at once he came into the water and then suddenly loomed up right near us, so near that we concluded that we could not get by without scaring him. So we turned in his direction only to find that he was rapidly crossing the lake, feeding from the bottom now and then, and making much noise snorting and blowing the water from his muzzle. The mist was beginning to thicken and made it somewhat difficult for us to see. In order to keep pace with the bull, it was necessary to drive the canoe fast, and yet imperative to stop it quickly in order not to run up on him, for each time he put his head under, his progress was arrested suddenly and he was, of course, facing away from us. In this way we followed back across the lake toward the place we had just left, and finally lost our game, as he showed no disposition to stop anywhere for any length of time, but walked right up on shore and disappeared. At this point the moon showed above the tree tops, inducing us to turn back for what we thought to be the cow and calf. As we approached the far shore again, the cow crossed in front of our light, wading along at a good rate of speed. Not far behind came what should have been a calf, but turned out to be a fork-horn bull. He was moving right along too, so we had no alternative but to follow behind them both and give chase. The cow disappeared through a patch of

bushes, but the bull stopped when half-way hidden from view. The guide, who was at the paddle, was somewhat inexperienced, and my signals to stop went astray. The next thing I knew, I found myself not more than two feet away from that bull's heels.

After much excited giving of verbal directions, we finally succeeded in widening the gap a little and increasing the margin of safety, and the bull very accommodatingly turned into the water again and started on up the lake. A grunt from the canoe stopped him, and we took him as he stood. For a few seconds he did not move, then proceeded on his way, grunting, his grunt sounding as much like the plaint of a calf as the grunt of a bull, however little grown beyond the calf age. When we had the gun and camera reloaded and were ready again, we could hear both moose wading steadily along, way down the shore. We must have chased them for a mile and a quarter before finally getting close enough for another chance. Several times when they stopped we were all set for a shot, only to have them start out again just before the canoe drifted into range. Once we came within an ace of getting them both together, but the cow moved off too soon and spoiled it. As they went around the point ahead of us with the moonlight silhouetting them and the increasing mist rising on all sides, they made a very striking picture. At last the cow turned out into deep water and gave a low whine as she started feeding there, and we moved up close enough to the bull to make him turn again by grunting at him. The flash was not quite quick enough to catch him before he swung his head away once more. Again he stood still for a few seconds before continuing his progress along the shore. While reloading this time, we could hear him go way around toward the east inlet of the lake. The cow was so far out in such deep water, and the mist was so thick and the moonlight so bright out there, that we decided to try to slip past her close to shore and go again after the bull. We had not gone far, however, before she spotted us, and then we had to stop so as to be sure not to be between her and shore when she started. She watched us for a few seconds, then broke into a long trot and went that way possibly two hundred yards to shore and on into the woods, followed shortly by the bull.

Paddling along past another inlet, which flowed into the lake very close to camp, we heard another moose and found a cow in the water, but she would not permit us to come into range before she walked off into the brush. By this time the mist had become so dense that the nearest shore was about all we could see. The chief difficulty about shining moose seems to be the danger of running into them after the flash, for, unlike deer, they frequently do not jump when the gun goes off, but stand for a few seconds even though alarmed. They do not seem as sensitive to noises as deer, perhaps because their only enemy is man and they feel safe from his intrusion with the coming of darkness. They are very easy to locate on account of the noises they make when feeding, as well as that made by the water rushing off their heads as they bring them out, and it is sometimes possible to hear them on a quiet night a mile away. We seldom took the trouble to follow the shore line, but as a rule pushed our canoe well out into the lake and there let it rest quietly until one of the animals made known its presence.

Heavy rains and the consequently increased density of the mist on the water at night interfered seriously with our chances for success for a time, although we did flash one cow. She stood broadside to the canoe, and as the light flared up, whirled and gave one great jump, stopped a few seconds and then wandered off to commence feeding again. She did not permit a second approach before retiring into the brush. During that day, we had seen nine moose, which gives some idea of the comparative numbers at large before and after dark.

One of the most interesting experiences of the trip to me, unfamiliar with the ways of the moose as I was, occurred when we heard the roar of water from the head of one of the great beasts way down the lake. When we passed the end of the point and pushed into the long arm of McKiel, there was not a breath of air stirring. It was warm too, with no sign of mist anywhere, and all the time that roaring was growing plainer, louder, and more insistent. Behind us we heard a moose come into the water, but fortunately we did not put it out and, of course, made no attempt to go back after it, for by this time we were almost certain that it was a good bull in the distance. Every now and

then we could hear a rush of water that it would seem must come from a big pair of antlers, and then the plunging of something heavy into the lake, sounding not unlike the flap of a beaver's tail, but not so flat and much heavier. The roar of water and the plunge of the head came so close together and at such short intervals that we thought at first there must be three moose feeding near together. At length one swam away, and we could hear it near the dam at the outlet of the lake. Meanwhile, we were approaching nearer and nearer to the constant roaring until at length we could dimly see a dark object ahead, and the white water shot up and scattered as the animal raised its head, snorting and puffing with each throw. There was no doubt now that it was a bull, and we had an explanation for the intervals between roars, for the old fellow was out in such deep water that only the top of his back showed when his head was under. He was swimming as he fed, and apparently could not hold his breath very long under water and consequently kept coming up every few seconds for a breath of air, only to go down again almost immediately. Soon we discovered that the bull was coming up the lake right towards us, so we kept the canoe backing in front of him. The effect that he gave in his travels was most interesting. First nothing visible but that narrow dark streak on the water, and sometimes not even that, then a roar and rush of water like a cataract, a dash of white spray, and the great head suddenly looming up and seeming to tower above us as the animal stuck out his muzzle for air, the whole thing to the accompaniment of a large amount of blowing and puffing; then the plunge under again, followed by silence. He seemed to progress as much with his head under water as out, and this necessitated our watching him very closely. As he turned toward shore, we backed away quite a distance and then swung in again, so that we could be sure to approach him head on and not get behind him. We found him near shore still in deep water with little of him showing except his head and neck. Running up as close as we dared, we waited for a chance. Once he turned his head right towards us, and I could see a wide spread of antlers. Then he put it under, and we hoped for a shot as he came up again, but before raising his head, he turned broadside to the canoe. He paid

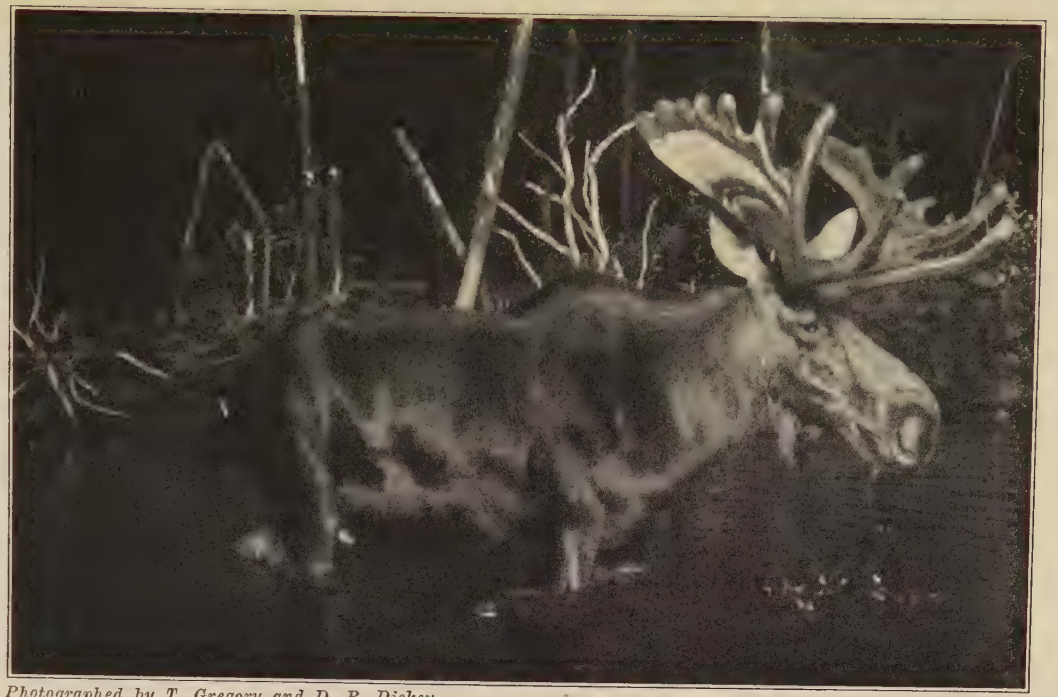
no attention to the flash, ducking his head again almost immediately for another mouthful of food. The canoe was backed out into the lake immediately and reloading cautiously begun. Soon the bull either saw the light and became alarmed or had enough to eat, for he stepped to the shore and there stood watching us, as nearly as we could judge, until we came away. Once, as we were trying to fix the gun, which had unaccountably become jammed, I distinctly heard him grunt.

We found another big bull a few nights later. We had seen him at dusk as we came back to camp along the shore and we were fortunate enough to paddle past him where he stood in the waters of an inlet without disturbing him. He was still there when we came back after dark, standing in the water up to his knees and very accessible to the canoe. He was not moving about, but standing still and feeding peacefully. The first shot would have been all right except that he was in the act of shaking the water from his ears, which, of course, blurred his head. The gun was loaded with half an ounce of specially fast powder and a quarter of an ounce of the normal grade. The fast powder is very explosive and when this shot was fired, the gun flew into the lake. We had it tied to the canoe, however, to guard against such a contingency, so it was easily recovered. At the flash, the moose whirled all the way around in one big jump, and then went on feeding again. All this time we could hear another one farther up the inlet. Upon our return after reloading in the shelter of a nearby point, we found the old bull in about the same place. This time we were more fortunate and the picture is all that could be desired. Again the moose jumped and then swung away at the shot and waded a short distance toward shore before continuing with his feeding. Before we had time to come in for a third effort, we heard him tearing through the water and were afraid he had gone out, but we could not figure out how he could get our scent as there was hardly a breath of air stirring and what there was favored us. He did not go far and could be heard still plunging his head into the water, leading us to the conclusion that he had chased off another moose that had come too close to suit him. This time he was not disposed to stand so long in one place and we found him some little dis-

tance up stream. Another moose nearer to the canoe stepped out of the water into the bushes as we approached and stood watching us. Our only chance at the bull appeared to necessitate passing this one. It behaved very well and sneaked off very quietly instead of making a lot of noise about it. Even this, together with the grating of the canoe on a log, made the big one a little anxious, and before we could come into range through the light mist that was drifting, he crossed to the bank, climbed out and disappeared. We then turned towards another animal which could be seen further up stream, but this one too declined to wait.

Coming into the lake again, we heard a moose far away and another in a nearby inlet. This latter shortly came into the lake and proved to be a cow some distance out from shore when we got there. We followed her around considerably as she fed with her head under water. Sometimes she stopped long enough to look at us and I could see her eyes shining—much further apart than a deer's, of course, and not so luminous and hence appearing smaller. Too soon she became alarmed and moved off toward shore. When we called to her, she broke into that sweeping trot and went out with a great racket and amid much spray.

We then proceeded around the point and lay still on the water waiting, soon to hear a deer coming in from the north shore. It was a doe and waded along by the bushes with head down and eyes shining. When the range was satisfactory, both deer and canoe were in motion and when she stopped, her head was behind a bush. A little scratching on the side of the box, however, brought it up and we took her that way. At the flash she gave one big jump toward shore, which looked more like an involuntary start than a well thought-out jump. Then she stopped, waded a short distance, and started feeding again. After backing out and reloading, we approached once more to find her deeper in the bushes, but she came right out and took her course along in the shallows, stopping to look at us just as we came into nice range. Some dead roots between her and the cameras, however, prevented a picture. Soon she turned her head, walked a little further, turned inshore, hesitated with head down a second



Photographed by T. Gregory and D. R. Dickey

CROWNED WITH IMMENSE ANTLERS

and then jumped for the timber, blowing as she went. That was the closing incident of that night on the lake, as the mist was getting too thick and we came in shortly thereafter. During our whole two weeks on McKiel Lake, we obtained no other deer pictures at night and only saw one more deer in the light of the jack.

On one other occasion we were fortunate enough to meet again one of the old monarchs and to have him stand long enough for a hasty shot. We did not come upon him, however, until well along in the night, as we had been skirmishing for several hours with other subjects. That was a beautiful still clear night, but the northern lights were bright for the first time on the trip. There are occasions when these lights really become something of a nuisance and have a tendency to diminish the effectiveness of our protecting jacklight. This time they showed in broad arches across the sky, with the usual fingers of light, followed by rippling flashes, with traces of blue, green and pink, very indistinct and delicate. All day the loons had been very noisy, laughing, giving their lonesome cry and single note and their osprey-gull cry, varying widely in their tones and keys. The stillness of the night was emphasized by contrast.

The first moose that we encountered seemed uneasy. She stopped feeding and stood still watching our approach for a number of seconds, walked out, stopped on the shore and then raced off barking vigorously and fairly continuously for some time, her bark reverberating, it seemed, all over the lake. We nearly ran down another cow because of some interfering mist and took a quick shot of her as she stood looking back at us over her shoulder. After gazing for several seconds after the flash, she walked off a few steps and then stopped to listen, appearing suspicious of the light. We reloaded and followed her, but before we were anywhere nearly within range, or even in sight of her again, she tore through the water and crashed away into the woods, barking as she went. At first we thought that she was just light shy. Then I noticed that the light was out!

A trip to camp was necessitated for a replenishment of our supply of oil, and it was so late and the mist was getting so thick that we concluded only to investigate the nearest inlet. There

was a moose waiting for us, not making much noise, and we followed it a short distance ahead. It stood quartering towards us with its head under water, and when the head came up, we saw that it was crowned with immense antlers, wide spread, wide palmed, heavy and well pointed, the best of the three that we encountered. But the bull did not stand still and raise his head. Instead, he started down stream, and before the canoe could be backed away and turned he had walked half-way past the limits of the jack's light and was not over fifteen feet from where we sat. He seemed to give a slight start then as he stopped, but the canoe was swung in time to prevent his bolting, and as soon as the light shone straight on him again, the flash was fired. He whirled in his first jump and then waded along slowly up stream. Upon our return, however, he had disappeared and in his place we found a cow. She was looking away and it was necessary to attract her attention with a little low grunt, but this made her nervous and she disappeared in short order, barking as she went.

The northern lights were again brilliant when we embarked on our next shining venture, but the sky was sufficiently overcast to deaden their effect considerably. It was a warm still night and conditions were most favorable for success. Soon after our start, a cow was flashed, which contrary to the general rule rushed ashore with all haste and then did considerable thrashing around and barking. A trip clear to the lower end of the lake, just above the dam, proved worth while. There we found a fork-horn bull and photographed him three times. He paid no attention whatever to the first shot, but went right on feeding as we backed away. On our second approach the drifting mist was a little troublesome. We followed the bull along the edge of the shore for a short distance, hearing him talking to himself at times, with the same half-whine, half-grunt that we had heard from the fork-horn, seen twice before. Before we were aware of how close we had drifted, he loomed up through a rift in the mist, immediately in front of us. We backed off hurriedly and took a second view of him, looking at us over his shoulder. He stood thus for several seconds before wading on and continuing his meal. When we came up a third time, he seemed to take

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PHOTOGRAPHED HIM THREE TIMES

Photographed by T. Gregory and D. R. Dickey

ONE OF THE HOMELIEST PICTURES OF A COW

notice of the jack, for he walked out towards us with his muzzle in the water, and with the explosion of the flash, raised his head, gazed at the light, and appeared to be somewhat startled.

By this time our powder was used up and we were forced to return to camp for some more. The bull saw us as we turned broadside to him and went out in a rush of water. Leaving camp after replenishing our supplies, we had no trouble in taking one of the homeliest pictures of a cow that could be imagined. Her head was stretched straight out before her, muzzle down near the water and ears flopping. She whirled and jumped with the flash, walked a few steps, stopped, shook herself and went on feeding again. Then began a most interesting chase for the second shot. As we drew near, she became immediately suspicious and alert. She walked past the front of the canoe from left to right, headed for the inlet, and turned first one way and then the other as she walked. When she had almost reached the shore, she turned out again, back once more, and then waded some distance down the other direction, with the canoe and jack following all the time. She seemed to be trying to dodge the light, but at length apparently decided to change her tactics, for she turned out into the lake and walked right towards us, stopping about twenty feet away. We stopped the canoe as quickly as possible, backed up a little, and took her as she stood, very much on the alert. This time she stopped at nothing, and was on her way with a whirl and a leap, and scrambled up the low bank of bushes as fast as she could.

There was only one other night when we could shine at all, and it was not possible then, on account of the wind, until late in the evening. During our preparations there appeared to be several moose in the water, but when we came into the middle of the bay, not a sound was to be heard. We took a course into the narrow part of the lake and heard an animal in the water ahead of us, but it went its way before we had even one glimpse. The whine of a calf further up the shore attracted us, but that too seemed to fade away before we could get near. It was cold by this time, though there was no mist and a breeze stirred only intermittently. A trip to the end of the lake availed nothing, but when we came again near the south shore we found two moose

quite close together. Three times we worked up toward them in an effort to keep both in the line of the jack, so as to scare neither. Finally, we came up to an old cow, and the gun missed fire. During this pursuit we heard another animal wading all over the bay, sometimes fast, sometimes slow, sometimes in deep water and again in shallow, but we never saw it. Neither of the two that we were after was bothered at all by the slight explosion of primer and gunpowder, so we backed away, thinking to put in another shell, but the poor old gun had become rusty from too many duckings and we could not even open it. We came away and left the lake for the last time, with the sound of a wading moose in our ears and hearing again that curious whining grunt of one of the two that we had just missed, as they both waded off into the night.

During one of our days at McKiel, we made a short excursion in search of bears, which we did not find, although the signs were plentiful. As we looked down from a nearby ridge into the marshy sections at the end of a small pond, we noted the progress of a cow coming down the lake, wading and swimming as the depth of the water varied. Her calf followed along the shore, walking at first. Soon its gait changed and it started to plunge, ending up with a high side kick with one hind leg, possibly an indication of exuberance of spirit, but more likely an effort to get away from the flies.

It is interesting to see these big animals scrambling up a low bank which a deer would clear in one jump. We found a very characteristic runway, perhaps eighteen or twenty inches wide and cut down a foot or so through the bank by constant wear.

As a rule, it is possible to know why deer or moose take alarm, but sometimes their action in this respect is puzzling. We watched two moose in the water one day for some little time. One of them went into deep water and began swimming around at random, ducking her head every now and then, very probably in an attempt to dodge the flies. Then all at once she turned toward shore and started to trot out. The other cow had been watching her as she had swung close in her circuit, and turned and followed her into the woods. They made a great deal of spray through the shallow water, and did not stop on shore at

Photographed by T. Gregory and D. R. Dickey

THE SECOND SHOT

all before disappearing. They could not have seen us or gotten our scent.

Just before supper, on the evening preceding our departure from McKiel, when the temperature had fallen and the wind was blowing hard, we saw a moose swimming across the lake in our direction. He proved to be not much bigger than a good-sized calf, undoubtedly a yearling, but with a fork or two on his spikes. He swam to the left off the end of a nearby point and then, instead of rushing for the shore to get out of the cold water and back into the shelter of the woods as any sensible animal should have done, he calmly put his head under water and began feeding. Once or twice he stopped to shake himself, or majestically to survey all about him, but continued his feeding as long as we watched him.

My last glimpse of a moose came as I stood on the station platform about to leave the forest of New Brunswick. I looked across a field toward the setting sun, a field rather low, but rising in a gradual slope on the far side. There was a stream flowing through the lower edge of it and a fringe of low trees and brush near the upper side of the stream. In the field were a number of cattle grazing. As I looked, I saw an animal speeding along the top of the slope toward the cattle, with a familiar long swinging trot. That gait and the slope of the animal's back were unmistakable. It was a moose, a cow as well as I could see. When she came near the cattle, she stopped for a few seconds and then cut off at a slant down the hill to get past them. They saw her, however, and took after her, helter-skelter, whereupon she broke her trot and just plunged wildly for the thicket to emerge on the other side, splash frantically across the stream, and disappear from my view behind some obstruction. The cattle were evidently within a fence, as they did not come through the brush, but slowly straggled back up the hill.

INDEX

Albinism 12, 50
Allen, G. M. 5, 6, 11, 15, 36
Antlers 6, 15, 59
  fossil 16
  growth 17
  measurements 22
  shedding 16
  unusual formation 87, 98
Apparatus for night photography 71
Audubon, J. J. 25, 31, 32, 36

Bachman 25, 31, 32, 36
Barbour, Thomas 5, 6, 11, 15, 36
Bark of cow moose 199
Bear 189
Beavers 48, 153, 183
Beds 43
Bleating 25, 32, 162, 181
Blind, use of 55, 66
Blowing 25, 43
Boat, use of 71
Brunner, Josef 38
Canoe, use of 49
Caton, John D. 10, 16, 17, 21, 35
Classification of White-tailed Deer 2
  Class 6
  Family 6
  Genus 5
  Order 6
  Species 2, 5
  Subspecies 5
Color 6, 31
Cory, Charles B. 9
Cram, William E. 9

Daylight photography 48
Dice, L. R. 12, 36
Ducharme, H. 28

Enemies 44
Explosive charge of flash powder 73

Fawns 11, 28, 48, 79, 83, 176
Feeding habits 40, 106, 166
Fighting 21
Flash gun 72
Food 26
  browsing on cedars 27
  salt 28, 137

Gait 35, 50, 150, 192, 196, 206, 209
Glands 11, 12

Habitat 39
Hariot, Thomas 5, 15
Harris, W. P., Jr. 28
Heron 123
Human voice as cause of alarm 149

Length of life 22
Licks 60, 66, 137
Lightning, effect of 146
Loon 102, 199

Mating 39
McKiel Lake, New Brunswick 49, 190
Merriam, C. Hart 5, 21, 27, 28, 32
Migration 37
Miller, Gerrit S., Jr. 2, 5
Mink 188
Miramichi River 190
Misfiring 75, 130, 157, 206
Mist, effect of 92, 193, 200
Moonlight, effect of 101
Motion-picture photography 49, 54
Mule deer, New Mexico 22
Muskrats 134, 175, 188

Nelson, E. W. 36
Newsom, William M. 5, 10, 26, 27, 40
Northern lights 146, 199, 200

Odocoileus, meaning of name 6
Osgood, W. H. 5, 12, 16, 28, 32, 36

Palmer, T. S. 6
Pelage 6
Playing 43, 162, 189
Protection 36, 47

Rain, effect of 87
Range 35
Roosevelt, Theodore 27, 28, 35
Runways 40, 70
Rushes 138

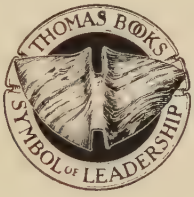
Senses 25, 53, 59
Seton, E. T. 6, 32, 35, 36, 43, 44
Shiras, George, III 21, 35, 37
Size 12
Stamping 43, 110, 146, 161
Stone, Witmer 9
Summer coat 6
Surefootedness 44
Swimming 43, 162, 169

Tail 15
Teeth 26
Temperature, effect of 60, 92
Timidity 25, 26, 44, 106
Tracks 38
Wind, effect of 76, 145
Winter coat 10
Wolves 181
Yards 28

THIS BOOK

DEER AT NIGHT IN THE NORTH WOODS

was set, printed and bound by The Collegiate Press of Menasha, Wisconsin. The cover design is by The Decorative Designers of Chatham, New Jersey. The type face is 11 on 12 point Scotch. The type page is 24 x 41 picas. The text paper is 70 pound Ivory Polychrome Enamel, dull finish. The end sheets are 20 x 26—65 White Antique Buckeye. The Jacket is 25 x 38—80 Ivory Polychrome. The binding is Holliston's Extra Colors 245 Plain Pattern.



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